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**From:** Birgfeld, Erin [Birgfeld.Erin@epa.gov]  
**Sent:** 9/22/2015 8:47:10 PM  
**To:** Grundler, Christopher [grundler.christopher@epa.gov]; Bunker, Byron [bunker.byron@epa.gov]; Cohen, Janet [cohen.janet@epa.gov]; Wehrly, Linc [wehrly.linc@epa.gov]  
**CC:** Hengst, Benjamin [Hengst.Benjamin@epa.gov]; Simon, Karl [Simon.Karl@epa.gov]; Snapp, Lisa [snapp.lisa@epa.gov]; Patulski, Meg [patulski.meg@epa.gov]; Cook, Leila [cook.leila@epa.gov]; Charmley, William [charmley.william@epa.gov]; Olechiw, Michael [olechiw.michael@epa.gov]; Sargeant, Kathryn [sargeant.kathryn@epa.gov]; Moran, Robin [moran.robin@epa.gov]; Alson, Jeff [alson.jeff@epa.gov]; Manners, Mary [manners.mary@epa.gov]; Moltzen, Michael [Moltzen.Michael@epa.gov]  
**Subject:** FW: Volkswagen Clips 9/22/2015

FYI – the latest VW clips for reference...

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**From:** Gong, Kristiene  
**Sent:** Tuesday, September 22, 2015 4:38 PM  
**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguillard, Robert; Valentine, Julia  
**Cc:** Smith, Roxanne  
**Subject:** RE: Volkswagen Clips 9/22/2015

**The Tennessean:**

<http://www.tennessean.com/story/news/politics/2015/09/22/tn-senate-leader-requests-hearing-on-volkswagen-issues/72625196/>

**TN Senate leader requests hearing on VW cheating issues**

Dave Boucher

A leader in the Tennessee Senate is asking a fellow lawmaker to call a hearing to look at how cheating revelations regarding Volkswagen may affect the state.

Senate Speaker Pro Tem Bo Watson, R-Hixson, notes the German automaker's significant investment in Tennessee as a reason he wants Senate Finance, Ways and Means Committee Chairman Randy McNally, R-Oak Ridge, to schedule a hearing.

"While all of the relevant facts may remain unreported at this time, I am very concerned as to the financial impact these violations could present to the state of Tennessee," Watson writes.

"As the chairman is aware, Tennesseans have made a significant investment in Volkswagen and any action that threatens the stability and sustainability of the investment should be reviewed by the finance committee, without delay," he continued later in the letter.

Tennessee provided Volkswagen with \$165 million in grants in connection to its massive facility in Chattanooga, where more than 3,200 people are employed. Volkswagen received more than \$577 million in incentives to build the plant in Chattanooga in 2008, The Associated Press reported. The AP also noted another state and local package worth up to \$300 million was offered last year to persuade VW to expand the Chattanooga plant to build a new SUV in Tennessee as opposed to elsewhere.

Volkswagen CEO Martin Winkerton apologized Tuesday in the wake of accusations from the U.S. Environmental Protection Agency that the company had intentionally installed software that allowed its cars to cheat in emissions tests. The company said the emissions software affected 11 million cars worldwide.

On Tuesday it was reported the company has set aside more than \$7 billion in anticipation of fines. USA TODAY reported recently that the car company could face \$18 billion in fines from the federal government.

Volkswagen sets aside \$7.3B over emissions scandal

On Monday Gov. Bill Haslam said he was concerned when he heard the revelations. He said he'd only spoken briefly with representatives from the EPA and Volkswagen.

"Volkswagen is somebody that is a major partner for us in the state of Tennessee, both in terms of investment and the jobs created. We're obviously very interested in their continued growth, but they're going to have to address this issue," Haslam told reporters Monday.

Lt. Gov. Ron Ramsey, R-Blountville, told the Chattanooga Times Free Press that the revelations are "depressing, hard to believe. On and on. We've made a huge investment."

Watson asked McNally to call the public meeting to discuss potential impact on Tennessee as soon as possible.

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**From:** Gong, Kristiene

**Sent:** Tuesday, September 22, 2015 3:33 PM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguiard, Robert; Valentine, Julia

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/22/2015

**NBC News:**

<http://www.nbcnews.com/business/autos/volkswagen-11-million-vehicles-could-have-suspect-software-emissions-scandal-n431456>

### **Volkswagen Sets Aside \$7.2 Billion to Pay for Emissions Cheating Scandal**

by PAUL A. EISENSTEIN

Volkswagen said Tuesday it is setting aside more than \$7.2 billion to cover the anticipated cost of resolving its diesel emissions cheating scandal, a figure that could be eclipsed by potential penalties and lawsuits facing the German automaker in the U.S.

The issue, meanwhile, now is spreading to other markets, with VW confirming it used the same illicit software - dubbed a "defeat device" by U.S. regulators - on 11 million diesel vehicles sold worldwide. That has triggered calls for new investigations in markets from South Korea to the European Union.

The money that VW is setting aside, 6.5 billion euros, is part of the company's efforts to "win back the trust of our customers," VW said in a statement Tuesday.

Meanwhile, it noted that it is "working intensely" to find a technical solution to removing the software without reducing the performance of affected VW products. A total of 488,000 VW and Audi brand vehicles equipped with four-cylinder engines were recalled Friday, while the automaker ordered dealers to stop selling products equipped with those diesels.

Concerns about the mounting costs and potential impact to VW's reputation have led to a panic among the company's investors. On Monday, the value of VW shares plunged by 17 percent, and the sell-off was continuing midday Tuesday on the German exchange.

The crisis could lead to a shake-up in management at Volkswagen AG, industry analysts have warned.

The U.S. Environmental Protection Administration announced Friday that the automaker had surreptitiously equipped its diesel vehicles with software designed to recognize when those products were being tested on a dynamometer, essentially an automotive treadmill. In such a situation, the full complement of emissions controls systems would operate at their maximum, bringing the vehicles into compliance with U.S. - and even tougher California - emissions standards.

But once the testing would be completed, according to the EPA, the vehicles would revert to a different mode, effectively allowing emissions levels to increase by as much as 40 times.

In its new statement, VW gave more details, admitting that "discrepancies" related to vehicles with Type EA 189 engines and involved some 11 million vehicles worldwide.

"A noticeable deviation between bench test results and actual road use was established solely for this type of engine," the VW statement said. "Volkswagen is working intensely to eliminate these deviations through technical measures."

While the maker acknowledged the computer control systems on 11 million vehicles contain the code, it also claimed that the "majority of these engines the software does not have any effect."

The U.S. has the world's toughest diesel emissions standards, largely focusing on levels of micro-fine particulates and smog-causing oxides of nitrogen. In Europe, where the emphasis is on global warming gases like CO<sub>2</sub>, diesels handily meet test standards because they are so energy efficient.

Even so, there are mounting calls in Europe for a full investigation of the VW diesel test scandal, and CEO Martin Winterkorn has told Germany's transit ministry the company will fully cooperate with its investigation. Officials in South Korea also have called for an investigation.

Meanwhile, the U.S. Justice Department has reportedly taken the preliminary steps to open a criminal investigation.

Whether the \$7.3 billion set aside is enough to cover VW's costs from the scandal remains to be seen. According to EPA rules, VW could be fined up to \$37,500 for each vehicle not in compliance with emissions regulations, or a total of around \$18 billion. California regulators could issue their own fines.

Several law firms also have taken initial steps of their own to bring class action lawsuits against Volkswagen on behalf of owners.

But perhaps the biggest question concerns the impact the scandal will have on VW's image and sales. The maker overtook Toyota to become the world's best-selling automaker during the first half of 2015. But it has been struggling to build momentum in the critical American market where about a quarter of its sales are diesel-powered vehicles. For now, VW has halted the sale of those models until it can come up with a fix for the faulty software.

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**From:** Gong, Kristiene

**Sent:** Tuesday, September 22, 2015 2:33 PM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguiard, Robert; Valentine, Julia

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/22/2015

**Bloomberg (via Chicago Tribune):**

<http://www.chicagotribune.com/news/sns-wp-blm-news-bc-vw-states22-20150922-story.html>

**Volkswagen probed by states over pollution cheating**

Christie Smythe, Bloomberg News

Several states have begun an investigation into Volkswagen's admission that it equipped cars with technology to cheat federal air pollution tests, joining federal investigators and a growing list of countries probing the German automaker.

Wolfsburg, Germany-based Volkswagen said on Sept. 18 that it used "defeat device" software to beat emissions tests in labs. The diesel vehicles spewed as much as 40 times the legal limit of pollutants when they were on the road, the Environmental Protection Agency alleges. Volkswagen said it's cooperating with U.S. officials.

The matter may cost Volkswagen \$18 billion in penalties from the EPA, based on a maximum \$37,500 violation for each of nearly a half-million diesel versions of the VW Jetta, Golf, Beetle and Passat and the Audi A3.

Matt Miententhal, a spokesman for New York Attorney General Eric Schneiderman, said in an e-mail today that he could confirm New York is part of the multistate group but was unable to say what other states were part of the probe.

The U.S. Justice Department has also begun a criminal probe, according to officials who spoke on a condition of anonymity.

The German government opened its own probe on Tuesday. Environment Canada also started an investigation, promising unspecified "enforcement action" if the car maker cheated in that country.

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**From:** Gong, Kristiene

**Sent:** Tuesday, September 22, 2015 1:28 PM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguiard, Robert; Valentine, Julia

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/22/2015

**NY Times:**

<http://www.nytimes.com/2015/09/23/business/dealbook/volkswagen-debacle-on-financial-par-with-bp-oil-spill.html>

### **Volkswagen Debacle on Financial Par With BP Oil Spill**

SEPT. 22, 2015

By ANTONY CURRIE and OLAF STORBECK

— Volkswagen's cheating on clean air rules in the United States has driven investors into a deep funk.

The German carmaker's market capitalization shrank 16.6 billion euros, or \$18.6 billion, in just over a day, after it was caught falsifying emissions on certain cars sold in the United States. The eventual cost could be higher. Although other carmakers have paid less for misdeeds, the better analogy might be oil: BP's 2010 Deepwater Horizon fiasco.

Rival carmakers got off relatively lightly for recent transgressions in the United States with more disastrous immediate consequences. General Motors paid \$900 million to settle a lawsuit over faulty ignition switches linked to 124 deaths. Toyota paid \$1.2 billion last year for malfunctioning accelerators tied to fewer fatalities.

No deaths can be directly pinpointed to Volkswagen blocking accurate checks on emissions — though the software installed in some vehicles hid levels of harmful nitrogen oxide up to 40 times above permitted levels.

The environmental twist perhaps makes BP's disastrous Gulf of Mexico oil spill a better comparison. Initial total cost estimates by analysts were as low as \$3.5 billion. The final bill under the Clean Water Act was \$5.5 billion, less than half the maximum fine. But BP's other costs, including damages, ballooned. All in, BP ended up setting aside almost \$55 billion in fines, compensation and cleanup costs.

The Clean Air Act allows the Environmental Protection Agency to charge up to \$37,500 a vehicle for any breaches. With 482,000 affected cars, that's \$18 billion. The E.P.A. could be kinder than that, but Volkswagen, run by Martin

Winterkorn, cheated government tests for six years, dissembled when confronted and meanwhile lauded Volkswagen's status as an environmentally sustainable carmaker.

Volkswagen can pay \$18 billion, over time, and retain its credit rating. It has €21 billion in net cash, with more coming from planned divestitures.

That, though, doesn't factor in other costs, including recalls, refits, vehicle buybacks and class-action lawsuits – or the possibility that Volkswagen's emissions shenanigans were more pervasive. Diesel cars account for more than half its sales in Europe, its largest market, though with more lenient nitrogen oxide standards. If the scandal undermines the business case for Volkswagen's diesel engines, a €16.6 billion drop in value will look like a country jaunt.

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**From:** Gong, Kristiene

**Sent:** Tuesday, September 22, 2015 1:18 PM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguillard, Robert; Valentine, Julia

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/22/2015

**Washington Post:**

<http://www.washingtonpost.com/news/wonkblog/wp/2015/09/22/anatomy-of-volkswagons-deception-the-recall-that-never-fixed-any-cars/>

**Anatomy of Volkswagen's deception: The recall that never fixed any cars.**

By Peter Whoriskey and Joby Warrick September 22 at 12:20 PM

Volkswagen's decision to equip 11 million vehicles with devices to cheat emissions tests worldwide has sent the company into an acute corporate crisis in recent days. But on December 2, 2014, the company assured U.S. and California regulators that their engineers had a straightforward solution.

Volkswagen told officials then that a software change would remedy the overflow of pollution emitted by their diesel cars, according to state and federal letters to the company. At the time, Volkswagen proposed a "voluntary recall" of about 500,000 vehicles. State and federal officials approved the plan.

That fix was either a technical failure or, some officials said, another ruse.

By May of this year, California tests showed that "the recall calibration did reduce emissions to some degree but NOx emissions were still significantly higher than expected."

The extent of the recall, which is discussed in letters between government and company officials, is unknown. Company officials wouldn't say this week how many recall notification letters Volkswagen issued to consumers, and how many consumers brought their cars in for the purported fix.

But the incident is one of the highlights in what federal and state officials have likened to a cat-and-mouse game between regulators and one of the world's largest automakers.

"They basically ran out of excuses," said Stanley Young, spokesperson for the California Air Resources Board. "They would say the tests weren't at the right temperature, or some other issue. We had them in [to our offices] several times."

EPA administrator Gina McCarthy said on Tuesday that the agency would step up efforts to look for cheating by other manufacturers, though she suggested that Volkswagen was an "outlier" in the extent of its cheating to defeat emissions standards.

"We are not going to sit down around and worry about whether or not there are other devices. We're going to find it," she said. "So right now we're upping our game in terms of going out and doing the work to take a look at what we need to do with other vehicles."

The company's dire diesel troubles have erupted over just a few days, but they were a long time in gestation.

The regulations that shaped the design of the diesel engines were put in place more than 15 years ago, when the EPA finalized rules that raised the emission standards for diesel cars.

After a years-long grace period, the tough standards were phased in between 2004 and 2007. At the time, the government acknowledged that meeting the standards for NOx, or nitrogen oxide, as well as soot, would be difficult.

"Manufacturers have expressed concerns that diesel-fueled vehicles would have difficulty meeting NOx and particulate matter levels like those contained in today's rule," EPA officials wrote in issuing the new standards. "Clearly, these standards will be challenging."

For a time, Volkswagen and other automakers stepped back from the U.S. diesel car market. It was a time to retool. Experts said the challenge of making a diesel engine clean enough for the U.S. standards - without compromising how the engine works - is very difficult.

"NOx is more of a challenge for diesel engines than it is for gasoline engines," said John Storey, distinguished research and development staff member at Oak Ridge National Laboratory. "The strategies companies use to clean them up all have an impact on performance, fuel economy and maintenance."

The engineering hurdles in controlling diesel emissions are high enough, some experts said, that they may provide an incentive for companies to skirt the rules.

"I can't say I'm surprised," John M. DeCicco, Ph.D. Research Professor at the University of Michigan Energy Institute, of the recent revelations. "The temptation to game the system with a defeat device is definitely high because of the technical challenges."

In 2008, Volkswagen came back with a diesel version of the Jetta. The company touted it as an example of the "clean diesel." It won raves, including "Green Car of the Year" at the Los Angeles Auto Show.

"After a three-year break that seemed interminable to fans, Volkswagen's back in the U.S. diesel-car market with a clean-burning diesel in its popular Jetta compact sedan," USA Today told readers.

But what seemed like a breakthrough seems now, in the light of recent revelations, like a massive cheat.

The company's two-liter diesel engines in the U.S. had been equipped with a "defeat device" that allowed the cars to pass federal emissions tests despite emitting more than 10 times the permitted amounts of NOx when it is on the road. Those emissions help produce smog on hot summer days, triggering a variety of health problems, particularly for asthmatics and other people with breathing difficulties.

As has been widely reported, the emission problems were detected in a May 2014 report by the International Council on Clean Transportation and West Virginia University.

The results were presented to the company and several months later, in December 2014, the company told California regulators that they had a fix. They would "recalibrate" the software that runs the engine.

“Based on this meeting, VW initiated a voluntary recall...This recall was claimed to have fixed among other things, the increased real world driving NOx issue,” according to a recent letter from the California Air Resources Board to the company.

By May of this year, California officials had run road tests on cars altered as under the recall. Despite the fix, the car showed higher than expected NOx emissions. California engineers also created a special dynamometer test, apparently to address company concerns that the previous testing was unfair.

California Air Resources Board “has determined that the previous recall did not address the high on-road NOx emissions, and also resulted in the vehicle failing certification standards,” it told the company earlier this month.

McCarthy, speaking to reporters in Washington, acknowledged that the Volkswagen software ruse was “particularly difficult for us to detect. We haven’t found similar types before but we’ll take a look and make sure we’re attacking it successfully,” she said.

McCarthy defended the EPA’s regulatory standards as reasonable, and said most other car manufacturers appear to have found a way to comply.

“This is about a NOx emission standard that was put in place a few decades ago. The industry knew what was happening. We feel pretty confident the industry has been innovating to be able to meet this standard,” she said. “So we don’t think that this problem with the standards at all.”

McCarthy said she was gratified by Volkswagen’s aggressive response in acknowledging its mistakes, even as she criticized the company for its years of deliberate deception.

“I think it will be very difficult for Volkswagen at this going to be looked at as anything other than a real outlier,” she said.

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**From:** Gong, Kristiene

**Sent:** Tuesday, September 22, 2015 12:29 PM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguillard, Robert; Valentine, Julia

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/22/2015

**Financial Times:**

<http://www.ft.com/intl/cms/s/0/ac6742b2-611d-11e5-a28b-50226830d644.html#axzz3mU7mhPP8>

**How VW’s ‘defeat device’ cheated on EPA emissions tests**

Clive Cookson, Science Editor

The “defeat device” that Volkswagen used to cheat on US emissions testing sounds as if a secret little black box was hidden deep in the diesel engine just waiting to switch anti-pollution controls on during government inspections.

During normal driving, these controls are relaxed, which improves performance and reduces engine wear.

“The test cycles are very formal and well established, so priming a vehicle to sense when it is being tested is potentially quite straightforward,” said Professor Alastair Lewis, an air pollution expert at York University in the UK. “For example are only its drive wheels turning, is the acceleration unnaturally smooth, or constant speeds too precise for a human driver?”

Modern “clean diesel” engines aim to reduce pollution in a series of computer-controlled steps. For example, the computer may adjust the ratio of air to fuel in the combustion chamber, change the operating temperature or alter the rate at which exhaust gases flow through catalytic converters and filters.

Another refinement is to inject a chemical called urea into the exhaust stream. It then reacts with polluting nitrogen oxides (NO<sub>x</sub>) and converts them into harmless nitrogen and water.

“A huge amount of complex electronics controls it all,” said Roger Kemp, professor of engineering at Lancaster University. “The code in the software gives thousands of different usage patterns corresponding to different combinations of inputs.

“There is a trade-off between pollution control and engine performance,” Prof Kemp added. For example running at a hotter temperature may cut emissions but reduce engine life.

Bosch, the German car parts company, supplies components to VW, including fuel injection and exhaust treatment systems that reduce emissions. But people familiar with the cars said VW writes the software that deploys the equipment.

According to the EPA’s notice of violation, the software ran the engine with “dyno calibration” settings designed to minimise pollution when it detected testing in progress (dyno refers to dynamometer equipment at the test centre). For the rest of the time it ran on “road calibration” which puts less emphasis on reducing emissions.

Even when the software switches to road running, a modern diesel engine is much less polluting than its filthy predecessors, Prof Kemp pointed out. Its filters and combustion chamber are particularly effective at cutting emissions of the tiny soot particles that used to belch out of ill-tuned engines (and still do in parts of the developing world).

The EPA allegations focus on NO<sub>x</sub>, reactive gases that are one of the main sources of urban smog and lung-irritating ozone pollution. The violation came to light when researchers at West Virginia University tracked emissions from VW diesel cars on the road and found that NO<sub>x</sub> soared to levels 10 to 40 times higher than the EPA permits.

Many air pollution experts have long believed that other manufacturers operate their own versions of VW’s defeat devices.

“Virtually all new vehicles in recent years appear to emit substantially more NO<sub>x</sub> in the real-world than they do when tested in labs, irrespective of manufacturer,” said Prof Lewis. “VW appear to have been caught red-handed, but it would seem highly likely that others have also played dubious games to pass emissions tests.”

Ian Colbeck, professor of aerosol science at the University of Essex, commented: “It has been observed for some time that real world driving conditions do not deliver the emission reductions shown in the laboratory. The European Commission will require real world tests in 2017.”

#### **USA Today:**

<http://www.usatoday.com/story/money/cars/2015/09/22/volkswagen-emissions-scandal/72605874/>

#### **Volkswagen emission scandal widens: 11 million cars affected**

Nathan Bomey

Investors crush Volkswagen shares as company sets aside \$7.3 billion to address software that manipulates emissions tests.

Volkswagen's emissions scandal ballooned Tuesday as the automaker said it affects 11 million vehicles worldwide and will require the company to set aside 6.5 billion euro (\$7.3 billion).



The startling admission instantly makes the crisis one of the most expensive automotive scandals in recent memory.

The crisis also threatens to upend the company on its rapid path to becoming the world's largest automaker. Volkswagen had seized the title from Toyota for the first six months of 2015.

"This could damage the Volkswagen brand globally for years to come," said former automotive marketing executive Peter De Lorenzo, blogger at Autoextremist.com, in an interview. "Trust and belief in the brand has been broken."

Volkswagen CEO Martin Winterkorn pledged to regain the public's trust and rectify the company's mistakes, amid speculation that he could lose his job over the crisis. Winterkorn's contract, coincidentally, is up for renewal at the automaker's board meeting Friday.

In a video statement Tuesday he said he's "endlessly sorry" for the situation but pledged to stay on the job, according to several reports translating the German remarks.

Investors crushed the Germans automaker's stock, driving shares down 18% as of 9:47 a.m. ET, a day after the stock plunged 19%.

The crisis began Friday when the U.S. Environmental Protection Agency accused Volkswagen of installing sophisticated software on nearly 500,000 U.S. vehicles to manipulate emissions tests.

The technology tricks regulators into believing that 4-cylinder diesel vehicles comply with emissions standards, but the cars are actually admitting harmful pollutants at rates of up to 40 times acceptable standards. Volkswagen quickly halted sales of the cars after the allegations surfaced.

The U.S. Justice Department has opened a criminal probe into the automaker's actions. The EPA's own investigation is ongoing, and foreign regulators are expected to launch their own probes.

"Volkswagen is working at full speed to clarify irregularities concerning a particular software used in diesel engines," the company said Tuesday in a statement.

The "discrepancies" affect vehicles with what it called "Type EA 189 engines," causing "a notable deviation between bench test results and actual road use."

The company added: "Volkswagen is working intensely to eliminate these deviations through technical measures."

Volkswagen said it would set aside 6.5 billion euro in its third quarter to address the matter and warned that the number could change.

In the U.S., the EPA could fine Volkswagen up to \$37,500 per car, which would equal a maximum fine of some \$18 billion.

"Volkswagen does not tolerate any kind of violation of laws whatsoever. It is and remains the top priority of the Board of Management to win back lost trust and to avert damage to our customers," the company said.

The scandal raises serious questions about whether high-level executives knew about the software, which had been installed on some nameplates for at least six consecutive model years.

Earlier this month a subcommittee of Volkswagen's board recommended that the full panel extend Winterkorn's contract through 2018. The official renewal at Friday's board meeting was viewed as a routine matter, but now it may be up in the air.

Winterkorn kept his job earlier this year after then-chairman Ferdinand Piech tried to displace him. Piech exited the company shortly after his failed effort.

De Lorenzo, the automotive marketing veteran, said Winterkorn will be forced to answer questions about his knowledge of the emissions scandal.

"He's very much detailed-oriented. He's always regaled his underlings with his depth of knowledge of detailed items that they would assume he wouldn't bother with," De Lorenzo said. "I think heads will roll and this could bring down Winterkorn and some of his trusted lieutenants."

Dave Sullivan, an analyst with AutoPacific, said the "chances of him coming out unscathed have got to be very small."

The EPA has said the company admitted to installing the software. The agency said the software affected the four-cylinder diesel versions of the 2009 to 2015 Jetta, Beetle, Golf, the 2014 and 2015 Passat and the 2009 to 2015 Audi A3.

The episode is likely to trigger a recall and a flurry of consumer lawsuits. It may prompt the company to compensate individual car owners or other measures.

European regulators are expected to place Volkswagen under intense scrutiny. But the scandal also could bode poorly for Volkswagen in the world's largest vehicle market, China, where Volkswagen is No. 1 by market share.

"The problem is the Chinese are starting to realize they have got to do something with their air and this could have an effect on the relationship the Chinese have with Volkswagen," Sullivan said.

The Environmental Protection Agency is working on new tests to detect cheating on the part of automakers in the wake of Volkswagen AG's massive cheating scandal.

EPA Administrator Gina McCarthy told reporters at a Wall Street Journal forum on Tuesday that the agency won't sit still and is "upping its game" to catch cheaters.

VW was able to evade U.S. emissions requirements for 482,000 2009-2015 diesel cars by using sophisticated software that only turned on emissions equipment during testing. It's not clear if VW did that to boost low-end torque, raise fuel efficiency or avoid more costly emissions requirements.

The fact that VW was able to get away with the cheating for nearly seven years suggests the agency must take new steps to detect bad behavior, analysts say. Cars are very sophisticated machines with more than 100 million lines of code.

The VW emissions issue came to the attention of the EPA in 2014 after independent analysis by researchers at West Virginia University — working with the International Council on Clean Transportation, a non-governmental organization — raised questions about emissions levels. After extensive testing, EPA confirmed that the vehicles were emitting up to 40 times the allowable pollution in road use.

The EPA told The Detroit News on Friday that it was investigating whether other automakers had similar problems. But McCarthy said so far it appears VW is an "outlier."

This will not be the first time in recent years that EPA has had to change its rules to ensure companies are complying with emissions.

In February, the EPA issued new guidelines to automakers for conducting fuel economy testing. The move came after five major automakers have had to restate mileage ratings for certain models.

The guidelines detail how vehicles must be prepared before being tested — including what is an acceptable level of wear on the tires and how vehicles should be broken in prior to testing.

Also at issue are tests used to determine the impact of aerodynamic drag and tire rolling resistance on gas mileage. Currently, that is measured at 50 miles per hour. Under the new guidelines, automakers must measure the results at all speeds up to 70 mph.

In 2014, the agency said it was considering writing new formal regulations covering mileage labeling by automakers. Instead, it is opting to issue the guidelines. It typically takes EPA two to three years to write new legal binding mandates.

Chris Grundler, the EPA's director of the Office of Transportation and Air Quality, said in an interview in February that "it's a very dynamic time" in the auto industry, and the agency doesn't want to spend several years crafting rules that could be outdated when issued.

"Writing regulations takes time," Grundler said. "When you are working in the rapidly changing environment that we're in right now, we want to make sure that we are agile enough and flexible enough to change with those times."

He said new guidelines are aimed at getting better results. He noted that the EPA will follow the guidelines when it conducts audits of automaker testing.

In November, Korean automakers Hyundai Motor Co. and Kia Motors Corp. agreed to a record-setting \$360 million settlement for overstating fuel economy ratings for 1.2 million 2011-13 U.S. vehicles. The settlement includes a \$100 million civil penalty, forfeiting \$210 million in greenhouse gas emission credits and spending \$50 million to ensure independent auditing of its current and future vehicles.

After an investigation by the EPA, Hyundai and Kia in November 2012 agreed to restate expected gas mileage for 1.1 million vehicles in North America, including 900,000 in the United States. That reduced Hyundai-Kia's fleetwide average fuel economy from 27 to 26 mpg for the 2012 model year. Hyundai was forced to abandon claims that four models got 40 mpg.

In August 2013, Ford Motor Co. dropped mileage ratings for the 2013 C-Max hybrid from a combined 47 mpg to 43 mpg. In June 2014, Ford Motor Co. said it is lowering the fuel ratings on six new cars and would make payments of \$125 to \$1,050 to more than 200,000 owners.

The move was a significant embarrassment to Ford, which has emphasized the fuel efficiency of vehicles in its lineup. It was the second time in a year that Ford has had to correct its mileage numbers.

Under current rules, Ford was able to assign the same fuel efficiency rating to the C-Max as the Fusion hybrid because they're in the same family. While that's worked for conventional cars, it hasn't been as accurate for hybrids.

Other German automakers besides VW have faced EPA scrutiny. In October, BMW AG agreed to reduce its fuel economy ratings on four 2014 Mini Cooper models.

BMW reduced the combined fuel economy of the three-door manual transmission to 33 miles per gallon from 34 mpg, the three-door semi-automatic from 33 to 32, the Cooper S 3-door manual from 29 to 28 and the semi-automatic version from 31 to 30. The biggest fall is in the highway rating for the Cooper S 3-door manual will fall from 38 to 34 mpg.

Also last year, another Daimler AG agreed to lower the mpg ratings on two of its Mercedes-Benz vehicles after a government audit turned up a problem.

Mercedes-Benz made minor changes to two models. It will reduce the city mpg figure for the 2013-14 C300 to 19 mpg from 20 mpg, but the combined 22 mpg and 27 mpg highway value will remain the same. For the 2013-14 4-Matic PZEV the combined mpg fell to 22 mpg from 23 mpg, while the city and highway mpg figures both fell by 1 mpg to 19 and 28, respectively.

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**From:** Gong, Kristiene

**Sent:** Tuesday, September 22, 2015 11:44 AM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguiard, Robert; Valentine, Julia

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/22/2015

**AP (via Washington Post):**

[https://www.washingtonpost.com/world/europe/volkswagen-sets-aside-73-billion-over-emissions-scandal/2015/09/22/3fe272e8-6112-11e5-8475-781cc9851652\\_story.html](https://www.washingtonpost.com/world/europe/volkswagen-sets-aside-73-billion-over-emissions-scandal/2015/09/22/3fe272e8-6112-11e5-8475-781cc9851652_story.html)

**VW CEO: 'Endlessly sorry' as emissions scandal escalates**

By Geir Moulson and Pan Pylas | AP September 22 at 11:32 AM

BERLIN — The crisis enveloping Volkswagen AG, the world's top-selling carmaker, escalated Tuesday as the company issued a profit warning following a stunning admission that some 11 million of its diesel vehicles worldwide were fitted with software at the center of a U.S. emissions scandal.

The German company said it was setting aside around 6.5 billion euros (\$7.3 billion) to cover the fallout from the scandal that has tarnished VW's reputation, raised questions over the future of CEO Martin Winterkorn and battered its share price.

Winterkorn pledged a fast and thorough investigation.

"Millions of people across the world trust our brands, our cars and our technologies," he said in a video message. "I am endlessly sorry that we have disappointed this trust. I apologize in every way to our customers, to authorities and the whole public for the wrongdoing."

"We are asking, I am asking for your trust on our way forward," he said. "We will clear this up."

The VW Logo is photographed at a car at the Car Show in Frankfurt, Germany, Tuesday, Sept. 22, 2015. Volkswagen has admitted that it intentionally installed software programmed to switch engines to a cleaner mode during official emissions testing. The software then switches off again, enabling cars to drive more powerfully on the road while emitting as much as 40 times the legal pollution limit. (Michael Probst/Associated Press)

The damage to Volkswagen's reputation is reflected in the market's response. Volkswagen's share price slid a further 16.2 percent Tuesday to a near four-year low of 112 euros. The fall comes on top of Monday's 17 percent decline.

The trigger to the company's market woes was last Friday's revelation from the U.S.'s Environmental Protection Agency that VW rigged nearly half a million cars to defeat U.S. smog tests.

The company told U.S. regulators that it intentionally installed software programmed to switch engines to a cleaner mode during official emissions testing. The software then switches off again, enabling cars to drive more powerfully on the road while emitting as much as 40 times the legal pollution limit.

"In my German words: we have totally screwed up," the head of Volkswagen's U.S. division, Michael Horn, told an audience in New York on Monday.

In a statement Tuesday, Volkswagen gave more details, admitting that there were "discrepancies" related to vehicles with Type EA 189 engines and involving some 11 million vehicles worldwide. The number of vehicles involved is more than the 10 million or so cars it sold in 2014.

Volkswagen said it is “working intensely” to solve the problem and that it “does not tolerate any kind of violation of laws whatsoever.”

To cover the necessary service measures and what Volkswagen says are “other efforts to win back the trust” of customers, the company said it is setting aside some 6.5 billion euros in the current quarter. There was no mention of fines or penalties in the company’s statement. The EPA has indicated that it could, in theory, fine VW up to \$18 billion.

**The Guardian:**

<http://www.theguardian.com/business/2015/sep/22/vw-scandal-caused-nearly-1m-tonnes-of-extra-pollution-analysis-shows>

**VW scandal caused nearly 1m tonnes of extra pollution, analysis shows**

Emissions could have far greater impact in Europe, where almost half passenger cars are diesel, than the US  
Karl Mathiesen and Arthur Neslen

Volkswagen’s rigging of emissions tests for 11m cars means they may be responsible for nearly a million tonnes of air pollution every year, roughly the same as the UK’s combined emissions for all power stations, vehicles, industry and agriculture.

The carmaker has recalled 482,000 VW and Audi brand cars in the US after the Environmental Protection Agency (EPA) found models with Type EA 189 engines had been fitted with a device designed to reduce emissions of nitrous oxides (NOx) under testing conditions.

A Guardian analysis found those US vehicles would have spewed between 10,392 and 41,571 tonnes of toxic gas into the air each year, if they had covered the average annual US mileage. If they had complied with EPA standards, they would have emitted just 1,039 tonnes of NOx each year in total.

On Tuesday the company admitted the device may have been fitted to 11 million of its vehicles worldwide. If that proves correct, VW’s defective vehicles could be responsible for between 237,161 and 948,691 tonnes of NOx emissions each year, 10-40 times the pollution standard for new models in the US. Western Europe’s biggest power station, Drax in the UK, emits 39,000 tonnes of NOx each year.

In the US, just 3% of passenger cars are diesel compared to almost half in the EU. Professor Martin Williams from King’s College London said the US’s low percentage of diesel cars meant higher diesel emissions in some cars would have a “limited effect” on air quality there.

“[In the US it would be] nowhere near the effect it would have in this country and in the rest of Europe for that matter,” he said. In the UK, Williams added, emissions from diesel cars cause roughly 5,800 premature deaths each year. “If you were to make the cars emit at the legal limit you could reduce those deaths by at least a factor of two and maybe more. Maybe a factor of five.”

The Clean Air in London campaign called for a royal commission to investigate carmaker’s activities in the UK.

“Diesel is without doubt the biggest public health catastrophe in UK history. Even the black plague didn’t affect everyone in the population,” said founder Simon Birkett.

Not all NOx emissions – which include nitrogen dioxide (NO<sub>2</sub>) and nitrogen oxide (NO) – are dangerous. But an increasing proportion of the toxic NO<sub>2</sub> gas has been detected in EU diesel emissions. A study in the British Medical Journal in May found that short term exposure to NO<sub>2</sub> increased the number of premature deaths from heart and lung disease by 0.88% and 1.09%.

For years, UK air pollution measurements have failed to show improvements in air quality, even as standards have tightened.

“Since 2003 scientists have been saying things are not right. It’s not just the VW story, this is part of something much bigger,” said Dr Gary Fuller, also of King’s College. “It has a serious public health impact.”

Last week, a report from NGO Transport & Environment found that Europe’s testing regime was allowing nine out of every 10 new diesel vehicles to breach EU limits. Testing regimes in the EU are known to fail to pick up “real world” emissions because cars are not driven in the same way in the laboratory as on the road. Some studies suggest the discrepancy may be up to seven times the legal limit.

Williams said being able to mask their NOx emissions would also enable carmakers to pass carbon emissions tests more easily as there was a trade-off between NOx and CO2 in diesel engines.

Catherine Bearder MEP, a lead negotiator on the EU’s new air quality laws, said: “Manufacturers in the US have been caught out, but we know that pollution limits are also being breached in Europe... Unless we take action, thousands of lives will continue to be tragically cut short by air pollution.”

In a sign that the emissions scandal will not remain restricted to the US, a Venice court will next month hear a case against VW and Fiat for misleading test advertising.

The Italian consumer rights group Altroconsumo is due to press its case for a class action suit against VW and Fiat on 2 October, after laboratory tests showed that fuel consumption and CO2 emissions from the VW Golf 1.6 and Fiat Panda 1.2 were up to 50% higher than claimed.

Altroconsumo wants the German car firm to pay damages of €502 (£365) to the owner of a VW Golf, in a case that raises the possibility of widescale compensation payouts by the car industry.

Monique Goyens, the director of the European consumer rights umbrella group BEUC, which includes Altroconsumo, called for an investigation by the European Commission into the use of software programmes to ‘game’ European emissions tests.

“The VW scandal has compounded our concern that underhand tactics are also being used in fuel consumption and CO2 testing programmes in Europe,” she said. “One of the problems in the EU, unlike in the US, is the absence of a market surveillance system which would require independent in-use conformity testing. The EU needs to implement such a system to restore trust amongst consumers.”

On Tuesday, the Italian government launched an investigation into VW’s emissions testing regime.

**Wired:**

<http://www.wired.com/2015/09/vw-fool-epa-couldnt-trick-chemistry/>

**VW Could Fool the EPA, But It Couldn’t Trick Chemistry**

Eric Niiler

FOR DECADES, AUTOMAKERS HAVE been caught between building an engine that squeezes a lot of energy out of the fuel it burns and one that has low emissions. It’s not an easy tension to resolve. “Negotiating both fuel consumption and emissions is a hard tradeoff,” says Anna Stefanopolou, professor of mechanical engineering at the University of Michigan.

When engineers at Volkswagen allegedly inserted a few lines of code into the diesel cars’ electronic brains to circumvent emissions testing, they found a solution to this existential automotive conflict. Drivers got low emissions during the test,

and high performance the rest of the time. The only problem: It's way outside of the rules. The company might have gotten away with it, too, if it hadn't been for those pesky engineers—and the basic chemistry of the diesel engine.

According to the US EPA, those lines of code hid the fact that nearly half a million diesel VWs in the US spewed up to 40 times more nitrogen oxide from their tailpipes than testing indicated. Volkswagen has now confirmed that the problem actually affects approximately 11 million diesel cars worldwide. Diesel engines use a different mix of fuel than gasoline engines and don't use spark plugs to induce combustion—relying instead on highly compressed, heated air and fuel injected as droplets. If a diesel engine doesn't get enough oxygen to combust the fuel, it'll emit all kinds of gunk—nitrogen oxides, uncombusted fuel, and particulate matter (soot, basically).

All that gunk is a big problem. Exposed to sunlight, nitrogen oxides convert to ozone—making smog. How much depends on a bunch of variables, like sunlight exposure and what happens to the hydrocarbon emissions (the uncombusted fuel), plus the temperature and local winds.

However much extra crap came from the VWs, it won't be good. Exposure to nitrogen oxide and ozone is linked to increased asthma attacks, respiratory illnesses, and in some cases premature death. Ozone also worsens existing cardiovascular and lung disease.

To deal with those emissions, “you have a whole chemical factory at the tailpipe that traps the oxides,” Stefanopolou says. This bumps the sticker price for diesel cars by \$5,000 to \$8,000 per vehicle. (On the other hand, diesels get better mileage, especially in highway driving.)

For years, diesel trucks and buses were the biggest polluters on the highway. But carmakers adapted a relatively new technology called selective catalytic reduction—the same tech that scrubs pollutants from factory smokestacks—to the tailpipe of the diesel engine.

Here's how it works: Inside a honeycombed chamber, the scrubbing system sprays a liquid made of 30 percent urea and 70 percent water into the diesel exhaust. This sets off a chemical reaction that converts nitrogen oxides into nitrogen, oxygen, water and small amounts of carbon dioxide—molecules that aren't as harmful to human health. Catalytic scrubbing was supposed to cut diesel NOx emissions up to 90 percent, according to the Diesel Technology Forum, an industry group based outside Washington. That made diesel engines clean enough to use in passenger cars, which have stricter emissions rules.

The scrubbing chemistry is also what gave away Volkswagen's alleged cover-up. In 2013, a small non-profit group decided to compare diesel emissions from European cars, which are notoriously high, with the US versions of the same vehicles. A team led by Drew Kodjak, executive director of the International Council on Clean Transportation, worked with emissions researchers at West Virginia University to test three four-cylinder 2.0-liter diesel cars in the Los Angeles area: a Jetta, a Passat, and a BMW. Only the BMW passed.

“We felt that it would be possible to get low emissions for diesels,” Kodjak said. “You can imagine our surprise when we found two of the three vehicles had significant emissions.”

The ICCT reported its findings to the EPA and the California Air Resources Board. Regulators met with VW officials in 2014 and the automaker agreed to fix the problem with a voluntary recall. But in July 2015, CARB did some follow up testing and again the cars failed—the scrubber technology was present, but off most of the time.

How this happened is pretty neat. Michigan's Stefanopolou says computer sensors monitored the steering column. Under normal driving conditions, the column oscillates as the driver negotiates turns. But during emissions testing, the wheels of the car move, but the steering wheel doesn't. That seems to have been the signal for the “defeat device” to turn the catalytic scrubber up to full power, allowing the car to pass the test.

Stefanopolou believes the emissions testing trick that VW used probably isn't widespread in the automotive industry. Carmakers just don't have many diesels on the road. And now that number may go down even more.

**IEEE Spectrum:**

<http://spectrum.ieee.org/cars-that-think/transportation/advanced-cars/how-professors-caught-vw-cheating>

**How Engineers at West Virginia University Caught VW Cheating**

By Philip E. Ross

Volkswagen, which had just become the biggest-selling automaker in the world, has now been nabbed committing perhaps the biggest corporate cybercrime of all time.

Its diesel cars were found to have cheated systematically on emissions tests run by the United States Environmental Protection Agency (EPA) over the past seven years. When the control system sensed that a test was under way, it would order the engine to ix-nay on the ox-nay—NOx that is, or nitrous oxides—long the bugbear of diesel engines. Later, when the coast was clear, the system would let the NOx pour out at up to 40 times the allowed levels in order to optimize fuel economy.

This dirty trick allowed for a clean getaway for some 482,000 cars under the VW and Audi brand names, including the VW Jetta and the Audi A3. The EPA found out, VW admitted wrongdoing, and it stopped selling the offending vehicles. Its shares lost more than One-fifth of their value in the early hours of the next trading day.

But the guys who found the clues to the crime say they weren't looking for trouble—they were just working under contract to a clean-transportation group that wanted to convince European regulators to adopt stricter emissions standards, as the United States has done.

"We had no cause for suspicion; we thought the vehicles would be clean," John German, of the International Council on Clean Transportation, told Bloomberg news.

The ICCT subcontracted the testing to the University of West Virginia's Center for Alternative Fuels, Engines and Emissions (CAFEE). Its engineers compared emissions measured on a road trip to results from the same cars that their colleagues were getting in the lab. The discrepancies were great.

Dan Corder, head of WVU's Center for Alternative Fuels, Engines, and Emissions (CAFEE)

Some people have mischaracterized what our role was," says Dan Corder, who heads up CAFEE. "Some have used the phrase 'tipped off the EPA.' We didn't."

The engineers from CAFEE reported on these preliminary results in spring of 2014 at the Coordinating Research Council's Real-World Emissions Workshop, which was held in San Diego that year. Corder hastens to add that the results, based as they were on a handful of cars, were preliminary and that they researchers drew no conclusions. According to Corder:

We said, these are two vehicles. We're presenting what we can present. EPA people were in the audience. And the ICCT publicized the results on its website, then delivered them to the EU's Joint Research Center.

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**From:** Gong, Kristiene

**Sent:** Tuesday, September 22, 2015 11:31 AM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguiard, Robert; Valentine, Julia

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/22/2015

**NY Times:**

<http://www.nytimes.com/2015/09/23/business/international/volkswagen-diesel-car-scandal.html>



## **Volkswagen Says 11 Million Cars Worldwide Are Affected in Diesel Deception**

By JACK EWING SEPT. 22, 2015

FRANKFURT — A scandal that has undermined Volkswagen in the United States spread to its core market of Europe on Tuesday, after the company said that 11 million of its diesel cars worldwide were equipped with software that was used to cheat on emissions tests.

Volkswagen did not provide information on where the affected cars are, but the overwhelming majority are probably in Europe, where the company dominates the market and accounts for more than one of every four cars sold.

The German automaker said it was setting aside the equivalent of half a year's profits — 6.5 billion euros, or about \$7.3 billion — to cover the cost of fixing the cars to comply with pollution standards and to cover other expenses, which are likely to include fines as well as responses to civil lawsuits from angry customers.

The carmaker's statement was its first admission that diesel cars outside the United States may contain the software that led the Environmental Protection Agency to accuse the company of deliberately evading pollution tests. Previously, Volkswagen had acknowledged only that the problem affected about 500,000 vehicles in the United States.

The tampered vehicles use what is known as Type EA 189 engines, which are 2-liter engines. The company said on Tuesday that "a noticeable deviation between bench-test results and actual road use was established" for the engines.

Volkswagen said it would also make "other efforts to win back the trust of our customers."

The number of cars involved suggests that the scale of the damage to Volkswagen's reputation and its financial standing may be even greater than thought.

Volkswagen shares fell by nearly 18 percent through late-afternoon trading in Frankfurt on Tuesday, after falling by 16 percent on Monday.

The diesel cars were programmed to sense when emissions were being tested and to turn on equipment that reduced emissions, according to United States officials. At other times, the cars had better fuel economy and performance, but produced as much as 40 times the allowed amount of nitrogen oxide, a pollutant that can contribute to respiratory problems including asthma, bronchitis and emphysema.

"Volkswagen is working intensely to eliminate these deviations through technical measures," the company said.

It is not clear, though, how fully Volkswagen might be able to correct the problem on the 11 million vehicles. The company could presumably alter the engines, so that the cars on the road begin actually meeting the required emissions standards. But doing so would probably degrade the vehicles' fuel economy and performance, and might cause the engines to wear out sooner.

The E.P.A. has ordered Volkswagen to recall almost a half-million vehicles sold in the United States from 2009 to 2015. The affected Golf, Passat, Jetta and Beetle cars were equipped with 2-liter diesel engines. Some Audi models also use the same diesel engine.

Volkswagen has halted sales of cars with the engines in the United States.

### **Reuters:**

<http://www.reuters.com/article/2015/09/22/us-usa-volkswagen-idUSKCN0RL0II20150922>

## **Volkswagen CEO's days appear numbered as emissions crisis deepens**

BERLIN | BY ANDREAS CREMER

Martin Winterkorn's days as head of Volkswagen AG appeared numbered on Tuesday after the German carmaker said a scandal over falsified vehicle emission tests in the United States could affect 11 million of its cars worldwide.

The Tagesspiegel newspaper, citing unidentified sources on Volkswagen's supervisory board, said the board would decide on Friday to replace Winterkorn with Matthias Mueller, the head of the automaker's Porsche sports car business.

A Volkswagen spokesman denied the report. The company later said it would post a video statement by Winterkorn at 1500 GMT. A spokesman for Porsche said Mueller was attending a Volkswagen board meeting at its headquarters in Wolfsburg.

A key Winterkorn ally withheld public support for the under-fire chief executive on Tuesday.

"I don't want to preempt the upcoming intense deliberations and will not comment on details or any consequences," Stephan Weil, head of the German state of Lower Saxony, told reporters in Hanover when asked about Winterkorn's future.

Weil, a supervisory board member representing Volkswagen's second-largest shareholder, earlier this year helped Winterkorn to see off a challenge to his leadership by long-time chairman Ferdinand Piech.

Shares in Europe's biggest carmaker plunged almost 20 percent on Monday after it admitted using software that deceived U.S. regulators measuring toxic emissions in some of its diesel cars.

The stock tumbled another 20 percent to a four-year low on Tuesday after some countries in Europe and Asia said they would launch investigations themselves.

Volkswagen said it would set aside 6.5 billion euros (\$7.3 billion) in its third-quarter accounts to help cover the costs of the biggest scandal in its 78-year-history, blowing a hole in analysts' profit forecasts.

It also warned that sum could rise, adding diesel cars with so-called Type EA 189 engines built into about 11 million Volkswagen models worldwide had shown a "noticeable deviation" in emission levels between testing and road use.

Volkswagen sold 10.1 million cars in the whole of 2014.

The U.S. Environmental Protection Agency (EPA) said on Friday Volkswagen could face penalties of up to \$18 billion for cheating emissions tests. The carmaker also faces lawsuits and damage to its reputation that could hit sales, while media reports have said the U.S. Department of Justice has opened a criminal inquiry into the matter.

The crisis has sent shockwaves through Germany, with Chancellor Angela Merkel calling for "complete transparency" from a company long seen as a beacon of the country's engineering excellence, and newspapers putting the blame squarely on Winterkorn.

The 68-year-old was due to have his contract extended at a supervisory board meeting on Friday, but is now facing questions over why the scandal wasn't averted.

Volkswagen, which for several years has been airing U.S. TV commercials lauding its "clean diesel" cars, was challenged by authorities as far back as 2014 over tests showing emissions exceeded California state and U.S. federal limits.

The company attributed the excess emissions to "various technical issues" and "unexpected" real-world conditions.

It wasn't until the EPA and the California Air Resources Board threatened to withhold certification for its 2016 diesel models that Volkswagen in early September admitted its wrongdoing.

"Winterkorn either knew of proceedings in the U.S. or it was not reported to him," Evercore ISI analyst Arndt Ellinghorst said. "In the first instance, he must step down immediately. In the second, one needs to ask why such a far-reaching violation was not reported to the top and then things will get tough too."

Porsche's Mueller was promoted to Volkswagen's executive board on March 1 and was previously its head product strategist. As a management board member of family-owned Porsche SE, he is also close to the Porsche-Piech clan that has a controlling shareholding in Volkswagen.

"TOTALLY SCREWED UP"

Winterkorn has built Volkswagen into a global powerhouse since he took the helm in 2007, with brands ranging from budget Seats and Skodas to premium Audis and top-end Porsches and Lamborghinis.

But he has also faced criticism for a centralized management style which some analysts say has hampered the company's efforts to address long-standing underperformance in North America.

Workers in Wolfsburg, where Volkswagen employs over 50,000 people, were dismayed by the damage to the company's image. "If Winterkorn knew of the manipulation, then he must go," said one staffer who works at the plant's human resources department.

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**From:** Gong, Kristiene

**Sent:** Tuesday, September 22, 2015 10:57 AM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguillard, Robert; Valentine, Julia

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/21/2015

**LA Times:**

<http://www.latimes.com/business/autos/la-fi-vw-subsidies-20150922-story.html>

### **U.S. taxpayers duped into shelling out \$51 million in green subsidies for 'clean' VW vehicles**

By JERRY HIRSCH

The federal government paid out as much as \$51 million in green car subsidies for Volkswagen diesel vehicles based on falsified pollution test results, according to a Times analysis of the federal incentives.

On Friday, federal and state regulators said the German automaker used software in 482,000 of its diesel vehicles since the 2009 model year to cheat on U.S. emissions tests. Environmental Protection Agency officials said Monday that the U.S. Department of Justice is also investigating.

The Times analysis matched Internal Revenue Service data with Volkswagen sales figures to determine the value of subsidies VW diesel buyers were eligible to collect in 2009, the first and only year the vehicles qualified. The \$1,300 tax credit would have been available to buyers of about 39,500 Jetta and Jetta Sportwagen models that sold that year, according to Motor Intelligence, an industry research firm.

"It is really unfortunate," said Luke Tonachel, director of clean vehicles and fuels project at the Natural Resources Defense Council. "The government has been effective to help advance clean technologies, but it is a waste of taxpayer dollars when they aren't actually helping to clean the environment."

He said regulators should factor in the \$51 million in subsidies when determining penalties for Volkswagen's Clean Air Act violations.

Such green car incentives have also gone to buyers of hybrid, electric and hydrogen fuel cell cars. But the EPA does not track aggregate figures for incentives paid out to buyers of specific models or brands.

The Volkswagen diesels qualified for the federal incentives in the same year the automaker first installed the software trick it used to cheat on emissions tests. The so-called defeat device employed an algorithm that automatically detects when the vehicle is undergoing pollution tests and changes the way the engine performs.

The algorithm senses whether the car is in a testing environment by analyzing a variety of data — steering position, speed, duration of engine operation and barometric pressure.

Away from the laboratory, during everyday driving, the cars emit up to 40 times the legally allowed amount of nitrogen oxide, environmental officials said.

The Environmental Protection Agency and the California Air Resources Board discovered the software. The EPA said Monday it will coordinate with federal prosecutors on further enforcement and penalties.

How Volkswagen cheated on emissions rules

Autos editor Brian Thevenot explains how Volkswagen used a software trick to hide illegal pollution levels in half a million diesel cars.

"Determinations regarding potential penalties and other remedies will be assessed as part of the investigation EPA has opened in conjunction with the U.S. Department of Justice," said EPA spokeswoman Liz Purchia.

The Justice Department has lately taken on a leading role in major investigations of automakers, usually leveraging the threat of criminal charges to exact huge fines.

Last week, General Motors agreed to pay a \$900-million fine to settle an investigation into why it did not promptly recall cars with a defective ignition switch that has led to crashes causing 124 deaths. Last year Toyota signed a \$1.2-billion settlement and admitted to deceiving regulators about deadly safety defects that allegedly caused unintended sudden-acceleration incidents.

No individuals were charged in the GM and Toyota probes.

"This might be the perfect case for Department of Justice to come down on the criminal side against individuals and not just the company," said Carl Tobias, a University of Richmond law professor. "Someone had to do the computer programming. Someone had to OK this, and all in what is known as an autocratic, top-down company."

The German automaker admitted installing the software after it was confronted by regulators. In a statement Sunday, VW Chief Executive Martin Winterkorn said, "I personally am deeply sorry that we have broken the trust of our customers and the public."

Winterkorn said the automaker "will cooperate fully with the responsible agencies, with transparency and urgency, to clearly, openly and completely establish all of the facts of this case."

He said VW has also ordered an external investigation into the matter, pledging to "do everything necessary in order to reverse the damage this has caused."

Volkswagen declined to comment on the Times analysis of its revenue from the federal Alternative Motor Vehicle Credit.

Volkswagen shares fell \$33.89, or 18.5%, to close Monday at \$149.68.

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This was the second time Volkswagen has been charged with using devices to evade U.S. emission-control rules.

In 1974, the automaker paid a \$120,000 fine to settle EPA charges that it gamed pollution control systems in four models by changing carburetor settings and shutting off an emissions-control system at low temperatures. VW didn't admit guilt but pledged management changes to ensure future compliance with EPA regulations.

This time the monetary damage could be much greater.

The automaker will have to recall all the vehicles and modify the emissions systems at its own expense, regulators said. Additionally it could face a fine of as much as \$18 billion, or \$37,500 per car. And for now it has suspended sales of thousands of new and used diesel models sitting on dealer lots — cars that are depreciating rapidly while the automaker develops a fix for the emissions system.

The affected diesel models are Jetta (model years 2009-15), Beetle (2009-15), Audi A3 (2009-15), Golf (2009-15) and Passat (2012-15).

Volkswagen also will face civil lawsuits on two fronts, including consumer fraud cases and class-action litigation for what is called a "diminished value" lawsuit. The vehicles are likely to lose some of their resale value because of the problem.

The Volkswagen case breaks new ground for how corporations can make "end runs" around legal requirements, said Ryan Calo, a University of Washington professor and expert in robotics and autonomous systems law and policy.

A company, for example, might learn of an inspection at a construction site and then make sure that workers wear helmets or it might clean a food plant thoroughly before a scheduled review even if it doesn't operate that way all the time.

"But this is encoded," Calo said. "I bet that it happens elsewhere but it is rare we detect it because we typically don't go through the code. There could be many examples in everyday things."

The VW issue demonstrates why regulators need more technical expertise, including a federal robotics commission, he said.

"We need experts in a centralized place whether the issues are drones, driverless cars or things like the VW example," Calo said.

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**From:** Gong, Kristiene

**Sent:** Tuesday, September 22, 2015 10:34 AM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguiard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/21/2015

**WSJ:**

<http://www.wsj.com/articles/epa-is-upping-its-game-after-volkswagen-allegations-1442929373>

### **EPA is 'Upping its Game' After Volkswagen Allegations**

Top administrator is pleased with auto maker's 'aggressive stance' on tackling problem

By JEFFREY SPARSHOTT

Sept. 22, 2015 9:42 a.m. ET

WASHINGTON—The top official at the Environmental Protection Agency said the agency is "upping its game" in the search for possible violations of U.S. pollution rules following allegations that Volkswagen AG circumvented emissions standards.

"We are not going to sit around and worry about whether others have it, we are going to find it," Gina McCarthy said at a Wall Street Journal breakfast Tuesday. "Right now, we are upping our game in terms of going out and doing work to take a look at what we need to do with other vehicles."

The EPA last week accused Volkswagen of dodging air-pollution rules on nearly half a million cars sold in the U.S. The German company has since halted American sales of the diesel-powered cars at issue and apologized for violating customers' trust.

Volkswagen allegedly used software, dubbed a "defeat device," in the cars to make diesel-powered engines appear to have lower levels of emissions than they actually did. About 482,000 Volkswagen diesel-powered cars sold in the U.S. since 2008 were affected.

Ms. McCarthy said the alleged violation was difficult to detect, but she is "pleased Volkswagen is taking such an aggressive stance on admitting the problem and attacking it."

"I think we have to be concerned whether there are other defeat devices out there that we have not been able to detect," she said. But the auto industry is well aware of the pollution rules and has been working to comply.

"I think it will be very difficult for Volkswagen at this point to be looked at as nothing other than an outlier," Ms. McCarthy said.

#### **Detroit Free Press:**

<http://www.freep.com/story/news/2015/09/21/us-house-panel-hold-hearing-vw/72583066/>

#### **Congress to hold hearing on VW air emissions violation**

Todd Spangler and Nathan Bomey, Detroit Free Press and USA Today 8:15 p.m. EDT September 21, 2015

WASHINGTON — Congressional investigators will hold a hearing in the coming weeks to take testimony on allegations raised by the U.S. Environmental Protection Agency that Volkswagen sold hundreds of thousands of diesel-powered vehicles with software to get around air emission limits.

U.S. Rep. Fred Upton, who chairs the House Energy and Commerce Committee, said Monday that the committee's Oversight and Investigations Subcommittee will look into the EPA's allegations, which were first raised Friday. VW's stock value plunged Monday in the aftermath of the revelations, which could affect some 500,000 vehicles and potentially result in fines totaling as much as \$18 billion.

Volkswagen's CEO said he was "deeply sorry" for violating U.S. emissions standards and on Sunday ordered an external investigation, two days after the EPA accused the automaker of purposefully manipulating emissions tests for almost 500,000 vehicles.

The German automaker ordered its U.S. dealerships to stop selling cars impacted by the probe until its engineers can deliver a fix.

A date was not set for the congressional hearing but Energy and Commerce staff said it would come within the next several weeks.

"Strong emissions standards are in place for the benefit of public health," Upton, R-St. Joseph, and subcommittee Chairman Tim Murphy, R-Pa., said in a joint statement. "We will follow the facts. We are ... concerned that auto consumers may have been deceived — that what they were purchasing did not come as advertised."

As the Free Press reported Friday, the EPA and the state of California accused VW of violating the Clean Air Act by using software in some 482,000 diesel-powered vehicles that could detect when the car was undergoing official emissions

testing and turn full emissions controls on only during the test. The effectiveness of pollution control equipment was reduced otherwise.

EPA's violation notice covered model year 2009-15 Jettas, Beetles, Audi A3s and Golfs and model year 2014-15 Passats.

As a result, Volkswagen had a hand in potentially exposing people to harmful pollutants at levels 40 times the acceptable standard and that could exacerbate respiratory conditions such as asthma, the EPA charges.

"I personally am deeply sorry that we have broken the trust of our customers and the public," Martin Winterkorn, Volkswagen's CEO, said in a statement. "We will cooperate fully with the responsible agencies, with transparency and urgency, to clearly, openly and completely establish all of the facts of this case."

"We do not and will not tolerate violations of any kind of our internal rules or of the law," Winterkorn said. The company's board takes the allegations "very seriously," he said.

The violations could expose Volkswagen — the world's largest vehicle manufacturer through the first six months of 2015 — to up to \$18 billion in federal fines if the EPA assesses the maximum possible penalty of \$37,500 per vehicle.

The violations could invite charges of false marketing by regulators, a vehicle recall and payment to car owners, either voluntarily or through lawsuits. Volkswagen advertised the cars under the "Clean Diesel" moniker.

The state of California is investigating the emissions violations.

The EPA accused the German automaker of adopting what it called a "defeat device" to trick U.S. regulators into believing its cars met Clean Air Act standards for nitrogen oxides. Volkswagen admitted to investigators it had installed the defeat device, the EPA said.

Volkswagen told dealers they cannot sell the 4-cylinder diesel versions of those cars until a fix is available, Volkswagen spokesman Mario Guerreiro said Sunday.

The sales halt could put a significant dent in the company's September sales performance. About 20% of Volkswagen's vehicle sales are diesel engines, said AutoPacific analyst Dave Sullivan.

"It totally goes against all of the marketing they have had of a clean diesel," Sullivan said of the violations. "That's one of the biggest selling points for Volkswagen."

"The trust of our customers and the public is and continues to be our most important asset," Winterkorn said Sunday. "We at Volkswagen will do everything that must be done in order to re-establish the trust that so many people have placed in us, and we will do everything necessary in order to reverse the damage this has caused. This matter has first priority for me, personally, and for our entire Board of Management."

#### **Chicago Tribune:**

<http://www.chicagotribune.com/business/ct-volkswagen-owners-0921-biz-20150921-story.html>

#### **Volkswagen owners should be nervous about emissions scandal, experts say**

Becky Yerak and Gregory Karp

Volkswagen hit with class-action suit over emissions cheating.

Automobile recalls, even huge, highly publicized ones, typically don't hurt new or used car sales, but the Volkswagen scandal involving tricking emissions testers is different and could be cause for worry among VW diesel vehicle owners, experts say.

At least one class-action lawsuit has already been filed on behalf of Volkswagen and Audi owners. It claims fraud and breach of contract, citing the "diminished value" of the nearly 500,000 recalled diesel vehicles, which usually sell for a premium price over their gasoline counterparts. Specifically, after recalled Volkswagen diesels are fixed, the cars might have degraded horsepower and fuel efficiency, the suit says.

The EPA says Volkswagen violated the federal Clean Air Act by installing "defeat devices" — software programmed to switch engines to a cleaner mode during official emissions testing. The software then switches off again, enabling cars to emit as much as 40 times the legal limit of pollutants during normal driving.

Volkswagen marketed the diesel-powered cars as being better for the environment. The affected diesel cars, according to the EPA's letter to Volkswagen on Friday, include: Jetta, 2009 to 2015; Jetta SportWagen TDI, 2009 to 2014; Beetle, 2012 to 2015; Beetle Convertible, 2013 to 2015; Audi A3, 2010 to 2015; Golf, 2010 to 2015; Golf SportWagen TDI, 2015; and Passat, 2012 to 2015.

Consumer Reports called the Volkswagen scandal "outrageous" and a violation of law.

"Volkswagen was ripping off the consumer and hurting the environment at the same time," said Ellen Bloom, senior director of federal policy for Consumers Union, the policy and advocacy arm of Consumer Reports.

The EPA has ordered VW to fix the cars at its own expense but said car owners do not need to take any immediate action. The EPA insisted that the violations do not pose any safety hazard and said cars on the road remain legal to drive. Volkswagen has ordered a stop to sales of new and used TDI cars in stock.

The EPA said, however, that the cars pose a threat to public health. The agency said the carmaker could be fined more than \$18 billion.

The automaker is also part of a criminal probe by the U.S. Justice Department, unnamed sources told The Associated Press and Bloomberg News.

In the Chicago region, Volkswagen dealerships were not responding to inquiries Monday, except one that said it hadn't heard from any consumers about the issue and expressed confidence the problem would be taken care of.

For consumers, whether diesel Volkswagens from seven model years will really have less value is an open question.

During recent high-profile recalls by GM, Toyota and Honda, there has been very little, if any, impact on sales, said officials from Kelley Blue Book, Black Book and Edmunds.

"With so many recalls in the news, they easily become white noise for a lot of consumers, and they don't appear to have much of an influence on shopping decisions," according to Edmunds.com.

Even when there's intense media coverage, the impact on resale value is "fleeting," as with the Toyota recall for accelerators that would stick, said Eric Ibara, a senior analyst with Kelley Blue Book. "It lasted for maybe six or eight months, and their resale values popped back to where they normally were.

Still, the Volkswagen recall is different.

First, it doesn't involve a safety issue but more a breach of public trust. "The impact on that could be longer-lasting," Ibara said. "Our concern is their image is tarnished ... I imagine if you own a Volkswagen, you're reading the coverage of what they've done."

Indeed, when a car is recalled for a safety reason, the recall could actually improve goodwill with the customer, said Anil Goyal, vice president of Automotive Valuation and Analytics for Black Book.



Another concern for current owners is how the resale values will react when Volkswagen eventually restarts selling the diesel models now sitting idle on lots after it stopped selling. "If they show up with higher incentive levels, that certainly impacts the used-car values," Ibara said.

In other words, if VW chooses to get rid of that inventory by offering great incentives and significantly lowering diesel car prices, demand for used cars would drop along with their prices.

Volkswagen offers some of the least expensive diesel models and in recent years had been a market leader in that segment of the vehicle market, said John Voelcker, editor of GreenCarReports.com. "Diesels in this country have mostly been confined to trucks," Voelcker said. "VW was the only volume maker of diesel cars."

According to Edmunds, VW and Audi account for 17 of 44 vehicle models that offer diesel engines, or 39 percent.

Diesel vehicles fetch a premium price both in the new and used markets. The premium price paid by new-car buyers for the diesel version of the recalled cars varies from \$1,000 to almost \$7,000, according to list prices.

In a quick analysis by Swapalease.com, a 3-year-old base model Volkswagen Golf using gasoline sold for 51 percent of its original value, while a diesel sold for 57 percent, said Scot Hall, executive vice president of operations for Swapalease.com. "That's a significant difference," he said.

It's an open question whether the VW diesels, which have TDI as part of the name for turbocharged direct injection, will retain the premium over their gasoline counterparts, Ibara said. "It would not surprise me if they drop a little bit, but I do not expect the premium to entirely disappear."

What fix Volkswagen will employ is unclear, whether it's a software solution or some physical repair or retrofit. It may just restate the fuel economy to be lower on diesels — maybe 3 to 5 mpg — and then be faced with offering some compensation to owners, Ibara said.

So far, it's difficult to say for sure that a fix would hurt the vehicle's fuel mileage, performance or reliability. But some current owners are expecting that, Hall said.

Hall said there's talk that some Volkswagen owners would avoid the fix because they prefer more power, better performance and greater fuel economy and care less about the emissions.

Consumer Reports said that, as a result of the scandal, it has suspended its "recommended" rating of two VW vehicles, the Jetta diesel and Passat diesel, until it can retest the cars with the recall repair performed. It said it will also assess whether the repair hurts performance or fuel economy.

The potential downgrade in performance was also mentioned in the class-action lawsuit,

filed on behalf of David Fiol, a California resident and 2012 VW Jetta SportWagen TDI owner. He seeks class-action status both nationally and in California, for unspecified punitive damages and legal fees, among other things.

Fiol, in his lawsuit, mentions "future additional fuel costs" and the "diminished value" of his vehicle, despite the recall.

Volkswagen won't be able to make the vehicles "comply with emissions standards without substantially degrading their performance characteristics, including their horsepower and their efficiency," the lawsuit said. "As a result, even if Volkswagen is able to make" plaintiffs' vehicles EPA compliant, the owners "will nonetheless suffer actual harm and damages because their vehicles will no longer perform as they did when purchased and as advertised."

Volkswagen didn't immediately respond to a request for comment about the lawsuit, filed last Friday by Seattle law firm Hagens Berman Sobol Shapiro in a U.S. District Court in the Northern District of California.

In Illinois, diesel vehicles like the VWs in question don't require emissions inspections like gasoline models, so the flap won't affect owners in that way, according to a spokeswoman for the Illinois Environmental Protection Agency.

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**From:** Gong, Kristiene

**Sent:** Tuesday, September 22, 2015 10:12 AM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguillard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/21/2015

**NY Times:**

[http://www.nytimes.com/2015/09/22/business/it-took-epa-pressure-to-get-vw-to-admit-fault.html?\\_r=0](http://www.nytimes.com/2015/09/22/business/it-took-epa-pressure-to-get-vw-to-admit-fault.html?_r=0)

**It Took E.P.A. Pressure to Get VW to Admit Fault**

By BILL VLASIC and AARON M. KESSLER SEPT. 21, 2015

Volkswagen executives told environmental regulators for more than a year that discrepancies between pollution tests on its diesel cars and the starkly higher levels out on the road were a technical error, not a deliberate attempt to deceive Washington officials.

But this month, the executives made a startling admission: The diesel vehicles it sold in the United States used software meant to cheat on the tests.

VW made the admission only when the Environmental Protection Agency took the extraordinary action of threatening to withhold approval for the company's 2016 Volkswagen and Audi diesel models, according to letters sent to company officials by the E.P.A. and California regulators.

Since that deception became public on Friday, Volkswagen has scrambled to conduct damage control. The chief executive apologized and the company said it would stop selling diesel-powered cars from the 2015 and 2016 model years.

All this was possible because environmental regulators had tools and powers at their disposal that another area of enforcement — auto safety regulation — does not have, despite the efforts of lawmakers, consumer advocates and, more recently, auto safety regulators themselves. Often, the auto industry has beaten back more stringent laws.

The National Highway Traffic Safety Administration, for example, can impose a maximum penalty of \$35 million on an automaker that flouts safety regulations — a relatively low sum for a company like General Motors, which last year paid such a fine for a defect that has now been linked to at least 124 deaths.

By contrast, under the Clean Air Act, Volkswagen, the world's largest automaker, could be fined as much as \$37,500 for each recalled vehicle, for a possible total penalty of as much as \$18 billion.

"The Clean Air Act statutory scheme gives E.P.A. more power and flexibility to move more quickly than N.H.T.S.A.," said Carl Tobias, a law professor at the University of Richmond, who has studied the government's response to auto safety issues. "E.P.A. also seems more tough-minded and savvy about how to be effective in this arena."

Still, the time it takes to investigate auto companies is often extensive, and getting the facts can be a challenge. "Even E.P.A. took a year to finally crack this case open," he said.

Beyond the E.P.A., the government has other tools at its disposal when it comes to enforcing environmental regulation.

As G.M. did, Volkswagen now faces a criminal investigation by the Justice Department, according to a person briefed on the inquiry. It is being conducted, though, by the department's Environment and Natural Resources Division, which is devoted to violations of environmental law. "Nearly one-half of the division's lawyers bring cases against those who violate the nation's civil and criminal pollution-control laws," the department's website says.

And on Monday, a subcommittee of the House Energy and Commerce Committee said it would hold a hearing on the issue.

It's only part of the pressure being applied to Volkswagen. An official with the Environmental Protection Agency said that discussions are continuing with Volkswagen, as the company grapples with how to handle a recall of the affected vehicles.

"We still have many questions for the company," said Christopher Grundler, head of the agency's transportation office. "It's the responsibility of Volkswagen and Audi to prepare a remedy for these vehicles."

There is no timetable for Volkswagen to submit a comprehensive plan to recall and fix the affected vehicles. But government officials are urging the company to take action quickly — both on developing a fix for the cars and starting a campaign to educate consumers on the problem.

"This does not happen immediately," Mr. Grundler said. "And we've been trying to be clear with the consumers that their vehicles are safe and they don't have to do anything right now." The assessment of fines for the violations will also not happen immediately. "That is down the road," he said.

"But we feel a sense of urgency to address the emissions of these vehicles that are already on the road."

A Volkswagen spokesman, John Schilling, said the automaker was "committed to fixing this issue as soon as possible" and to developing "a remedy that meets emissions standards and satisfies our loyal and valued customers."

Even with the looming punishment, the company almost got away with it. In fact, it most likely would have if not for a strange twist of fate and the curiosity of several auto researchers.

Two years ago, the International Council on Clean Transportation, a nonprofit environmental group staffed by a number of former E.P.A. officials, had been testing the real-world performance of so-called clean diesel cars in Europe, and were less than impressed with the emissions results.

The group decided it would test diesel-powered cars in the United States, where regulations were much more strict, as a way of almost shaming the European automakers to tighten their compliance. The group fully expected the American cars to do well, and run cleaner than their counterparts across the pond.

What they could not have foreseen was that they would stumble onto one of the biggest frauds in recent automotive history.

Further, on the campus of West Virginia University, a group of emissions researchers who mainly dealt with heavy trucks noticed an unusual posting by the transportation council, which was looking for a partner to test diesel-powered cars.

"No one had done that before in the U.S.," said Arvind Thiruvengadam, a professor at the university. "It sounded very interesting, to test light-duty diesel vehicles in real-world conditions. We looked around at each other said, 'Let's do it.' "

The university's team bid on the project and got the contract. Mr. Thiruvengadam and his colleagues never envisioned where it would lead. "We certainly didn't have an aim of catching a manufacturer cheating," he said. "It didn't even cross our minds."

The study also did not target Volkswagen specifically. It was something of a fluke, he said, that two out of three diesel vehicles bought for the testing were VWs.

It did not take long for suspicions to set in. The West Virginia researchers were well-versed in diesel performance on real roads, and had certain expectations for how the test cars should ebb and flow in their emissions. But the two Volkswagens behaved strangely.

“If you’re idling in traffic for three hours in L.A. traffic, we know a car is not in its sweet spot for good emissions results,” Mr. Thiruvengadam said. “But when you’re going at highway speed at 70 miles an hour, everything should really work properly. The emissions should come down. But the Volkswagens didn’t come down.”

Even then, however, it is difficult for most researchers to be sure exactly what is going on. There are so many factors involved in real-world driving — speed, temperature, topography, braking habits. It is not unheard-of for cars to perform much differently in on-the-road tests than one expected.

But this time there was a key difference: The California Air Resources Board heard about the groups’ tests and signed on to participate. The regulators tested the same vehicles in their specially equipped lab used to judge cars’ compliance with state emissions standards. That gave the project what most studies lacked: a baseline.

“That broke loose everything,” Mr. Thiruvengadam said.

In the lab, the two VWs performed flawlessly. But when they were taken out on the roads in California, they were belching out levels of nitrogen oxide that were 30 to 40 times higher than the regulatory standards. Even the heavy-duty trucks the researchers had tested had never performed that poorly by comparison.

“It just didn’t make sense,” said John German, one of the leaders on the project at the transportation council. “That was the real red flag for us.”

#### **Forbes:**

<http://www.forbes.com/sites/maggiemcgrath/2015/09/22/goldman-chief-lloyd-blankfein-discloses-highly-curable-cancer/>

#### **Volkswagen Credit Spreads Soar After EPA Charges Co. With Evading Pollution Controls**

John Atkins, CONTRIBUTOR

Credit spreads referencing German automaker Volkswagen widened sharply today after the U.S. Environmental Protection Agency on Friday charged the company with evading government pollution controls through software designed to allow diesel models to meet clean-air standards, but only during official emissions testing. The government demand for recalls affects roughly 500,000 vehicles.

Volkswagen five-year CDS costs increased 80% today, rising 60 bps to the 135 bps area, or a high since 2012, trade data show. The 2.45% notes due Nov. 20, 2019 issued by subsidiary Volkswagen Group of America Finance last November, at T+85, changed hands today as much as 77 bps wider on the session, reaching at G-spread equivalents as wide as T+180, according to MarketAxess.

Credit analysts today noted the significant potential risks to VW’s credit standing and reputation. “VW’s operating margins have lagged peers (BMW, Daimler) for some time, and the automaker has cited encouraging U.S. vehicle sales in the context of its 2015 revenue and profit outlook,” stated FTN Financial senior credit strategist Benjamin Millard in a credit note.

While it acknowledged uncertainties regarding the impact of the scandal on Volkswagen’s brand image and reputation – and terming the development a “crisis” for VW – Fitch today said the scandal is unlikely to trigger an immediate

downgrade of Volkswagen's A rating, even though Volkswagen reportedly faces a maximum penalty of \$18 billion as well as any costs related to a recall effort.

"We believe the fine is unlikely to amount to the theoretical maximum amount of USD37,500 per car, although there have been only very few precedents of such cases and associated fines. In addition, the group's financial structure is sound and its free cash flow (FCF) generation extremely robust," Fitch stated today.

The outlooks on the respective A/A2 ratings at S&P and Moody's are currently stable, through S&P warned as recently as Sept. 7 that stricter carbon rules were fueling high capital spending demands on Europe's carmakers.

**TIME:**

<http://time.com/money/4042745/volkswagen-epa-diesel-scandal/>

**The Volkswagen Diesel Emissions Scandal, By the Numbers**

Ethan Wolff-Mann @ewolffmann Sept. 21, 2015

VW is accused of faking pollution tests on a grand scale.

Last week, the EPA accused Volkswagen of deliberately falsifying tests of its diesel engine cars so that the vehicles would pass anti-pollution standards. A massive recall of nearly half a million Volkswagen diesel cars was ordered, causing a major stir in the industry—and especially among VW owners who had been drawn to the vehicles because of the automaker's "clean diesel" claims.

Let's look at the situation by the numbers.

482,000 Diesel cars affected, which include TDI Jettas, Beetles, Golfs, and Audi A3s from 2009-15 and Passats from 2014-15.

\$37,500 Fine per vehicle that the German automaker could face in the U.S.

\$18 billion Possible total penalties faced by Volkswagen, and that figure doesn't include fixing the recalled cars.

40 Times over the legal limit of certain types of pollution emitted by the vehicles, including nitrogen oxide—which can cause respiratory problems.

\$6,855 Premium that buyers were paying for Passat TDI cars over standard gasoline versions.

-20% The hit Volkswagen stock has taken since the scandal.

12 Number of months Volkswagen has been denying cheating on the emissions test.

2017 When Volkswagen may sell diesel cars again in the U.S., now that sales have been halted.

2.0 Liter 4-cylinder engines affected. Larger diesel engines used in SUVs don't have the software at the center of the controversy.

\$0 Current resale value of affected cars in California, because the cars were sold as "non-compliant" (and therefore cannot be resold).

14.28% Of affected cars that are registered in California

23 Percentage of Volkswagens sold in August that were diesels.

## **Automotive News:**

<http://www.autonews.com/article/20150921/OEM11/150929980/vws-diesel-sales-frozen-until-compliance-is-proven-epa-official-says>

### **VW's diesel sales frozen until compliance is proven, EPA official says**

Fix must be approved before recall can begin

Chris Grundle: "It will take more work to determine what the appropriate remedy for these vehicles is."

By Ryan Beene

WASHINGTON -- With its diesel car lineup grounded by an emissions-test cheating scandal, Volkswagen now bears the burden of proving that these vehicles comply with federal emissions standards, the EPA's top auto regulator said.

Until then, said Chris Grundle, director of the EPA's Office of Transportation Air Quality, no sales.

Meanwhile, Grundle said, the EPA and California regulators are now probing all light-duty diesel vehicles in the U.S. market from all manufacturers to check for illegal software designed to fool U.S. emissions tests.

U.S. regulators accused VW on Friday of violating the Clean Air Act by selling 482,000 diesel-powered vehicles with such illegal software. The agency said the company admitted to fitting seven model years' worth of diesel cars with the software -- termed a "defeat device" -- that would activate the cars' emission controls during testing, but deactivate them in real-world driving.

In order to be able to resume sales of diesels, Grundle said, VW has to engineer a fix to bring those vehicles into compliance, and receive EPA approval before a recall can commence. It's not clear yet whether that fix will consist of a change to the engine's emission control software or more substantial engineering changes to vehicle hardware, Grundle said.

According to the EPA's website, it could take up to one year to identify "corrective actions," develop a recall plan and issue recall notices. But Grundle declined to discuss a specific timetable.

"Until we gather that information and are convinced ... we're not going to go forward with the recall," Grundle said. "It will take more work to determine what the appropriate remedy for these vehicles is."

Capitol Hill

U.S. lawmakers want more answers, too.

Republican leaders of the House Energy and Commerce Committee today announced plans to hold a hearing on the VW emissions scandal in the near future. The hearing will be held before the panel's Oversight and Investigations Subcommittee, though no date has been set.

"We will follow the facts. We are also concerned that auto consumers may have been deceived -- that what they were purchasing did not come as advertised," U.S. Reps. Fred Upton, R-Mich., and chairman of the Energy and Commerce Committee and Tim Murphy, R-Pa., chairman of the investigations subcommittee, said in a joint statement.

"The American people deserve answers and assurances that this will not happen again. We intend to get those answers."

Also in Washington, the White House said today it was "quite concerned" about reports it was seeing concerning VW's conduct in complying with U.S. Clean Air Act requirements.

"It's fair to say that we're quite concerned by some of the reports that we've seen about the conduct of this particular company, but ultimately this is the responsibility of the EPA to take a look at it and that's exactly what they're doing," said White House spokesman Josh Earnest.

#### California questions

VW will also have to convince the EPA and California's Air Resources Board that its 2016 model year diesel vehicles will comply with emissions standards and are free of any illegal software, Grundler said. Until then, the agency will continue to withhold the emission certifications needed to begin sales of those models, which are currently being withheld from dealers.

The sales suspensions are a blow to Volkswagen, which counts on diesels for more than one-fifth of the VW brand's sales volume, and has touted its "clean diesel" technology as a key differentiator in the marketplace.

"We've been working with the company for a long time trying to get answers and it wasn't until very recently that VW admitted that these vehicles contained software designed to defeat the emissions standards," Grundler said. "We want to make sure that 2016 model vehicles don't operate the same way."

#### **Popular Mechanics:**

<http://www.popularmechanics.com/cars/a17430/ezra-dyer-volkswagen-diesel-controversy/>

#### **This VW Diesel Scandal Is Much Worse Than a Recall**

This isn't cost-cutting. This is outright cynical deceit.

By Ezra Dyer

Most of the time, media test cars are distinguished only by a license plate that might bear a discreet "manufacturer" tag. Audi diesels, though, are a different matter. Whether a Q7 or an A3, the diesel press cars from Audi (which is part of the Volkswagen group) always bear towering "TDI Clean Diesel" decals across their flanks. I guess the theory is that when the cars are out on the road they're serving double duty as billboards, spreading the gospel about the Volkswagen group's engineering prowess.

A few years ago I bought a nasty Ford F350 diesel for an engine swap, and I parked it next to an Audi A3 and took a few shots to capture the juxtaposition: truck from the dirty diesel past, Audi harkening to the clean-burning future. That certainly looks ironic today.

If you're not up to speed on Volkswagen's shenanigans, you can catch up here. Suffice to say that it seems the A3's sanctimonious TDI Clean Diesel stickers were relevant only when the cars were actually undergoing an EPA emissions test. Out in the real world, 2.0-liter Volkswagens and Audis were as much as 40 times above the legal emissions limit for nitrogen oxides (NOx). According to the EPA, about 482,000 four-cylinder Volkswagens and Audis built since 2009 included what the agency defines as a "defeat device," which is really just software that detects an emissions test and "turns full emissions controls on only during the test." The cheater software was discovered by researchers at West Virginia University who were trying to document the cleanliness of modern diesels. Volkswagen surely wishes they hadn't bothered.

The revelation of this emissions subterfuge answers at least two questions about VW's mighty little diesel. The first concerns urea injection, which every other modern diesel uses to pass emissions tests. The urea-injection systems help to neutralize NOx emissions, but they also add weight and cost to the car, and saddle car buyers with yet another tank of liquid that must be monitored. If you run out of this diesel exhaust fluid, it's like running out of fuel—on trucks with such systems, running dry on urea triggers a severe limp-home mode with a 5 mph speed limiter. That's how seriously the EPA takes NOx.

Everyone wondered how VW met emissions standards while foregoing urea injection. As it turns out, they didn't. It wasn't magical German engineering. Just plain old fraud.

The second question concerned fuel economy. It's been widely noted that four-cylinder TDIs tend to smash their EPA fuel economy estimates in real-world driving. The last TDI Jetta SportWagen I drove was rated at 42 mpg highway, but on 60-mph two-lane roads I averaged more like 50 mpg. That's a huge difference. Did running non-compliant emissions improve fuel economy? That's possible. And if so, that raises an interesting question: When the cheater VWs emitted too much NOx, were they also emitting a lot less CO2 thanks to improved economy? Maybe the good doesn't offset the bad, but it's something to consider. You can bet that VW's lawyers will.

THE INTENTIONALITY BEHIND THE DECEIT MAKES THIS SITUATION DIFFERENT FROM EVEN A HUGE-SCALE RECALL.

So, how is Volkswagen going to fix this? Putting aside the inevitable fines, possible criminal charges, and massive public disgrace, there are half a million cars running an emissions setup that never should've left the factory. And there's no quick fix to make up for VW's lies.

All the other carmakers control diesel emissions by spraying a urea solution into the exhaust stream, where a catalyst converts it to ammonia. The ammonia breaks down NOx into nitrogen and water. If all of that sounds like it would be tough to bolt right in, you're correct. Maybe VW can meet the standards without adding equipment—say, by tweaking the engine control unit (ECU) with a different tuning. But what if that new tuning meets the emissions standards but sacrifices performance or fuel economy? Now you've got 482,000 customers on a class action lawsuit.

There's no easy way out of this, but they'd better figure something out, and pronto. Right now dealers are banned from selling 2.0-liter TDIs, which make up about a quarter of VW's U.S. sales. News of the scandal caused VW to lose about a quarter of its market value, indicating that investors understand how bad this is. There's no cheap fix nor easy settlement here.

The intentionality behind the deceit makes this situation different from even a huge-scale recall. This isn't a story about a part that was made one cent cheaper than it should've been, where a car company cut a corner to save a little cash. It's about a huge corporation eying the rulebook and deciding there's a competitive advantage in violating the Clean Air Act. Incompetence is one thing, but calculated mendacity is quite another.

It's too bad. That Golf SportWagen TDI is a punchy, fun car. It's got great fuel economy, tons of torque and a bargain price. But when something seems a little too good to be true, maybe that's because it is.

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**From:** Gong, Kristiene

**Sent:** Monday, September 21, 2015 4:33 PM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguiard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/21/2015

**Chicago Tribune:**

<http://www.chicagotribune.com/business/columnists/ct-rosenthal-vw-emissions-0922-biz-20150921-column.html>

**VW comes clean on dark heart of its diesel cars. Can it clear the air?**

Phil Rosenthal

Seems VW fought diesel wars with smoke and mirrors, mostly smoke. What the fahrvergnügen?! Volkswagen called it clean diesel. Clean like Lance Armstrong. Clean like the Chicago River.

Seriously, what the fahrvergnügen?!

VW has admitted to the Environmental Protection Agency that hundreds of thousands of its diesel cars have been using what is literally a killer app.



The software allowed the vehicles to sail through U.S. emissions tests while reportedly spewing 10 to 40 times the level of certain pollutants as allowed in ordinary use.

It's been smoke and mirrors — mostly smoke — for the last seven model years.

We're talking about 2009, 2010, 2011, 2012, 2013, 2014 and 2015 VW Golfs, Jettas and Beetles, along with Audi A3s, equipped four-cylinder, 2.0-liter turbodiesel engines. Oh, almost forgot the 2012-15 Passats.

That's nearly half-a-million vehicles in all, belching nitrogen oxide to preserve mileage ratings and performance no other carmaker could seem to match, thanks to emissions control systems programmed to operate only when testing protocols were detected.

So we get more smog and ozone and poisons tied to a litany of health problems, such as asthma attacks and other respiratory diseases, along with premature death. VW gets more car sales.

Score one for German engineering and systematic subterfuge, trading our health for its profits.

Apparently the EPA was first tipped to VW's plot when discrepancies showed up in independent testing. But it seems like precisely the sort of thing James Bond is told of when strapped to a nuclear missile about to launch.

The word diabolical comes to mind.

So does evil.

One pictures even C. Montgomery Burns, king of the corner-cutters on "The Simpsons," looking askance. And we don't know yet if VW is the only offender.

The auto industry isn't overburdened by high expectations, particularly in the last 12 months or so.

General Motors last week agreed to a \$900 million settlement to end a criminal investigation into its failure to disclose a deadly ignition defect.

Toyota last year agreed to a \$1.2 billion penalty for withholding information about its vehicles' unintended acceleration linked to other fatalities.

Takata, it's been revealed, knew of dangerous, potentially fatal defects in its airbags long before alerting federal regulators, leading to the recall of millions of Honda, Toyota, Chrysler, Subaru, GM, Mitsubishi, BMW, Mazda, Nissan and Ford vehicles.

Yet, as Automotive News noted, "Compared with other run-ins between the EPA and automakers, VW's alleged violation stands out in its brazenness."

This takes that kind of amoral corporate behavior to a whole other threat level.

VW didn't just conceal something it discovered endangering people. It created technology for the specific purpose of allowing it to benefit from endangering people.

Even if you're one of those people who somehow isn't a fan of clean-air standards, it's not a political statement to press on and try to throw authorities off the trail. It's just a crime.

Tampering with emissions control systems, under terms of the Clean Air Act, could mean a fine for VW as high as \$37,500 per vehicle or roughly \$18 billion, though you know what happens when you start to haggle with car guys.

But even if VW is fined and there's a mandatory recall, some drivers will be reluctant to embrace the fix because it likely will make the vehicle less effective and efficient than the one they thought they bought.

Funny we never caught wind of any of this in those slightly discomfiting VW commercials with the old ladies hitting on a salesman. Least we don't remember any mention of it.

VW pulled the ads off the air and, to the extent it could, off YouTube as word of its scandal came out, yet more proof that a carmaker can indeed move fast to protect something it actually cares about — like its bottom and bottom line.

This isn't the Olympics. It's one thing to try to keep test results from showing banned substances in one's own body, quite another to try to mask bad stuff being inflicted on others.

Cough.

This goes beyond the venality of one corporation to whether there's any confidence left in diesel cars and credibility in the entire auto industry. Even if this is as far as it goes, it will take quite a while to clear the air.

VW recently surpassed Toyota to become the world's largest carmaker, an achievement now eclipsed by the suspicion that there is nothing it wouldn't do.

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**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguillard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/21/2015

**Bloomberg (via Australian Financial Review):**

<http://www.afr.com/news/world/volkswagen-faces-us-criminal-probe-on-emissions-20150921-gjrtss>

### **Volkswagen faces US criminal probe on emissions**

The US Justice Department is conducting a criminal investigation of Volkswagen's admission to cheating on federal air pollution tests, according to two US officials familiar with the inquiry.

Volkswagen said last week it's cooperating with regulators probing gaps between emissions on the road and lab tests on some diesel models, affecting more than half a million cars. The US officials described the inquiry on condition of anonymity because it's a continuing investigation.

The Wolfsburg, Germany-based automaker plunged as much as 23 per cent Monday to 125.40 euros in Frankfurt, wiping out about 15.6 billion euros (\$US17.6 billion) in market value. The stock closed at 132.2 euros, its lowest in more than three years.

Volkswagen's admission is putting pressure on Chief Executive Officer Martin Winterkorn to repair the reputation of the world's biggest carmaker. Winterkorn, whose contract renewal is scheduled for a supervisory board vote on Friday, now faces a serious challenge to his leadership, said Arndt Ellinghorst, a London-based analyst for Evercore ISI.

"This latest saga may help catalyze further management changes at VW," Ellinghorst wrote in a note Monday.

Justice Department spokesman Wyn Hornbuckle declined to comment.

Criminal inquiries can take months or years and lead to charges against individuals and companies. They can also result in fines and deferred-prosecution agreements, such as the one recently struck with General Motors Co., to spur companies into improving their behaviour and addressing problems revealed during the investigations.

Volkswagen admitted on September 18 to fitting some of its US diesel vehicles with software that turns on full pollution controls only when the car is undergoing official emissions testing, the Environmental Protection Agency said Friday. Affected are diesel versions of the VW Jetta, Golf, Beetle and Passat and the Audi A3.

During normal driving, the cars with the software -- known as a "defeat device" -- would pollute 10 times to 40 times the legal limits, the EPA estimated. The discrepancy emerged after the International Council on Clean Transportation commissioned real-world emissions tests of diesel vehicles including a Jetta and Passat, then compared them to lab results.

VW said it's cooperating with regulators probing gaps between emissions on the road and lab tests on some diesel models. According to the EPA, the company insisted for a year that discrepancies were mere technical glitches.

Winterkorn, who has led VW since 2007, was forced to halt sales of the cars on Sunday and issue a public apology, saying he's "deeply sorry" for breaking the public's trust and that VW would do "everything necessary in order to reverse the damage this has caused."

The violations could result in as much as \$US18 billion in fines, based on the cost per violation and the number of cars.

The US accusations are "grave" and must be clarified swiftly, said Stephan Weil, prime minister of the German state of Lower Saxony, which owns 20 percent of Volkswagen's voting shares. "Possible consequences can be decided after that."

The European Commission also said it's taking VW's cheating seriously and is in contact with US regulators and the company about details of the case.

**The Guardian:**

<http://www.theguardian.com/business/2015/sep/21/volkswagen-emissions-scandal-sends-shares-in-global-carmakers-reeling>

**Volkswagen emissions scandal could snare other companies, whistleblower claims**

Billions wiped off value of industry heavyweights amid concerns that manipulation of air pollution data could be 'very widespread'

Joanna Walters Graham Ruddick and Sean Farrell

The emissions-fixing scandal that has engulfed Volkswagen in the US could extend to other companies and countries, one of the officials involved in uncovering the alleged behavior told the Guardian on Monday.

Billions of pounds have been wiped off the value of global carmakers amid growing concerns that emissions tests may have been rigged across the industry.

"We need to ask the question, is this happening in other countries and is this happening at other manufacturers? Some part of our reaction is not even understanding what has happened exactly," said John German, one of the two co-leads on the US team of the International Council for Clean Transportation (ICCT), the European-based NGO that raised the alarm.

Shares in Volkswagen fell by almost a fifth after the world's second biggest carmaker issued a public apology in response to US allegations that it used a "defeat device" to falsify emissions data.

The US Justice Department is conducting a criminal investigation of Volkswagen admission, according to Bloomberg, which cited two officials familiar with the inquiry.

The company could face a fine of up to \$18bn (£11.6bn), criminal charges for its executives, and legal action from customer and shareholders. The US law firm Hagens Berman has already launched a class-action law suit on behalf of customers who bought the affected cars.

VW shares fell by 19% in Frankfurt, wiping almost €15bn (£10.8bn) off its value. Shares in Renault, Volkswagen's French rival, also dropped by 4%, while Peugeot was down 2.5%, Nissan 2.5% and BMW 1.5% amid concerns they could be caught up in investigations.

The US Environmental Protection Agency said on Friday that VW had installed illegal software to cheat emission tests, allowing its diesel cars to produce up to 40 times more pollution than allowed. The US government ordered VW to recall 482,000 VW and Audi cars produced since 2009.

In response, Martin Winterkorn, chief executive of VW, said on Sunday he was "deeply sorry" for breaking the trust of the public and ordered an external investigation.

German tipped off regulators at the California Air Resources Board (Carb) and the US Environmental Protection Agency (EPA) after conducting tests that showed major discrepancies in the amount of toxic emissions some VW cars were pumping out compared with the legal limits.

Max Warburton, an analyst at the financial research group Bernstein, said: "There is no way to put an optimistic spin on this – this is really serious."

A British expert in low-emission vehicles claimed the manipulation of air pollution data could be "very widespread" and that tests in Europe are "much more open to this sort of abuse".

Greg Archer, a former government adviser and head of clean vehicles at the respected Transport & Environment thinktank, said: "I am not surprised. There has been a lot of anecdotal evidence about carmakers using these 'defeat devices'. All credit to the US's EPA for investigating and finding the truth."

Archer, the former managing director of the UK's Low Carbon Vehicle Partnership and non-executive director for the government's Renewable Fuels Agency, said the scandal could spread into petrol cars and CO2 levels. "It is probably not limited to diesel and not limited to emissions," he added.

The "defeat devices" are thought to work by injecting more urea – an exhaust fluid – into the car when it is being tested. This limits nitrogen oxide emissions. The car detects it is being tested because devices such as the anti-collision systems have to be turned off when it is in the laboratory. The extra urea is not injected into the car when it is on the road because it would quickly run out.

Archer claims European tests are more open to abuse because they are conducted before the car goes into mass production and by companies that have been paid by the carmakers. These testing companies have been verified by regulators in each country, such as the Vehicle Certification Agency, but in the US the tests are conducted by an independent body.

Industry leaders in Britain claimed there was "no evidence" that manufacturers are cheating the system in Europe but admitted it needs to be reformed.

Mike Hawes, chief executive of the Society of Motor Manufacturers and Traders, the industry trade body, said: "The EU operates a fundamentally different system to the US – with all European tests performed in strict conditions as required by EU law and witnessed by a government-appointed independent approval agency. There is no evidence that manufacturers cheat the cycle."

“The industry acknowledges, however, that the current test method is outdated and is seeking agreement from the European Commission for a new emissions test that embraces new testing technologies and is more representative of on-road conditions.”

The US allegations involve a series of diesel cars produced by VW and the brands it owns, such as Audi. These include the Audi A3, VW Jetta, Beetle, Golf and Passat models. VW has halted sales of these models.

Jochen Flasbarth, a senior environment official in the German government, accused Volkswagen of “blatant consumer deception” over the scandal. The country’s economy minister, Sigmar Gabriel, also warned it could damage the reputation of the country’s vital automotive industry.

“That this is a bad case, I think is clear,” Gabriel said. “You will understand that we are worried that the justifiably excellent reputation of the German car industry and in particular that of Volkswagen suffers.” The German government has launched its own investigation into VW and held talks with executives.

The scandal puts the future of Volkswagen chief Winterkorn in serious doubt. Earlier this year he won an internal power struggle with Ferdinand Piëch, who stepped down as chairman. The board of the company is due to meet on Friday to discuss extending Winterkorn’s contract.

Winterkorn has been at the helm of VW since 2007 and has been directly responsible for research and development since then.

Guido Reinking, a German automotive analyst, told German television station n-tv: “It’s almost impossible to imagine that he didn’t know about this special way of programming the engine.”

David Bailey, professor of industrial strategy at Aston University in Birmingham, said: “If it is the case that they have been trying to hoodwink regulators, it’s a really dumb thing to do. Regulators will look at this more closely now. There has been growing concern about diesel cars and nitrous oxide emissions. The industry has been trying to make the case that the latest regulations largely deal with that issue but regulators will now look more closely at whether they have.”

In the wake of the scandal two senior VW executives cancelled a planned appearance at a media event in New York with rock star Lenny Kravitz scheduled for Monday evening.

Herbert Diess, chairman of the VW brand’s management board, and Heinz-Jakob Neusser, VW’s board member in charge of technical development, had planned to attend the event to introduce the latest version of the Passat mid-size sedan.

The chief executive of VW’s US arm, Michael Horn, was still due to attend the event. He is expected to provide a statement about the situation.

#### **Jalopnik:**

<http://jalopnik.com/volkswagen-is-now-the-target-of-a-criminal-investigatio-1732130214>

#### **Volkswagen Is Now The Target Of A Criminal Investigation: Report**

Michael Ballaban

In a move that seemed like an inevitability at this point, the United States Department of Justice is said to have opened a criminal investigation into Volkswagen’s admission to cheating on diesel emissions tests, a report from Bloomberg said.

While we had heard rumblings of a possible criminal probe earlier, this news appears to confirm that VW is in fact the subject of an investigation that could lead to prosecutions.

It's way too early to tell whether or not any individuals will personally be held criminally liable for the company's deceptions, but it's not out of the realm of possibility. We haven't seen a case in a long time where a company has admitted intentionally circumventing the law, rather than just a plea of massive institutional incompetence, so it's anyone's guess as to what will happen.

The U.S. Environmental Protection Agency has said that the company can be held responsible for up to \$18 billion in fines.

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**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguiard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/21/2015

**Business Insider:**

<http://www.businessinsider.com/the-us-government-is-launching-a-criminal-investigation-into-vws-falsified-emissions-figures-2015-9>

**The US government is launching a criminal investigation into VW's falsified emissions figures**

Benjamin Zhang

The US Department of Justice has launched a criminal probe into Volkswagen's falsification of emissions data, Bloomberg news is reporting.

Last week, the Environmental Protection Agency accused the automaker of falsifying the data using secret software in nearly 500,000 cars.

According to Bloomberg's Del Quentin Wilber, two government officials close to the situation say the Justice Department is conducting a criminal investigation into the allegations.

Last week, the EPA accused VW of using the hidden software — called a "defeat device" — to dodge clean-air standard during emissions testing.

"Using a defeat device in cars to evade clean air standards is illegal and a threat to public health," assistant administrator for the Office of Enforcement and Compliance Assurance Cynthia Giles said in a statement on Friday.

"Working closely with the California Air Resources Board, EPA is committed to making sure that all automakers play by the same rules. EPA will continue to investigate these very serious matters."

The EPA alleges that VW installed software that detects when the car is undergoing emissions testing, at which point the software would turn on all of the car's emissions control systems. But the EPA claims that the software greatly reduces the cars' pollution-control systems during normal driving conditions.

"This results in cars that meet emissions standards in the laboratory or testing station, but during normal operation, emit nitrogen oxides, or NOx, at up to 40 times the standard," the EPA said in a statement.

Across the Atlantic, the German government is also taking a look at Volkswagen's emissions data. A spokesperson for the country's Motor Vehicle Agency told the Wall Street Journal that it has asked automakers to provide accurate emissions information to "determine whether similar instances of manipulation have taken place in Germany or Europe," However, there is no word of any official investigation on the part of the German government.

Over the weekend, VW CEO Martin Winterkorn issued the following statement:

The U.S. Environmental Protection Agency and the California Air Resources Board (EPA and CARB) revealed their findings that while testing diesel cars of the Volkswagen Group they have detected manipulations that violate American environmental standards.

The Board of Management at Volkswagen AG takes these findings very seriously. I personally am deeply sorry that we have broken the trust of our customers and the public. We will cooperate fully with the responsible agencies, with transparency and urgency, to clearly, openly, and completely establish all of the facts of this case. Volkswagen has ordered an external investigation of this matter.

The recall affects 482,000 diesel-powered cars sold in the US since 2008. They include:

Volkswagen Jetta TDI: 2009-2015

Volkswagen Beetle TDI: 2009-2015

Audi A3 TDI: 2009-2015

Volkswagen Golf TDI: 2009-2015

Volkswagen Passat TDI: 2014-2015

We have reached out to Volkswagen and the DOJ for comment. We will update when we hear back.

**Fortune:**

<http://fortune.com/2015/09/21/volkswagen-emissions-recall-scandal/>

**Dear Volkswagen: Exaggeration? Not so bad. Deception? Never okay**

by Jennifer Reingold @jennrein SEPTEMBER 21, 2015, 3:44 PM EDT

One wonders what would have happened had Volkswagen opted for exaggerating its results rather than falsifying them.

The business world—and the journalists who cover it—have always rewarded a healthy bit of hype. Best Ever! New and Improved! Now with enhanced whatever!

Actually, the love of the big claim goes far beyond the business world and is interwoven throughout society. Donald Trump's current popularity is only the latest example of bombast, er, trumping reality.

But we do have limits, as the scandal at Volkswagen shows. So far, the company's stock price has fallen almost 20% since it admitted on September 18 that it had installed software that allowed its cars to fake their performance on emissions testing in order to fool the EPA.

No one knows what will happen to the \$221 billion in sales car company—the world's largest—going forward, and whether the deception stretches all the way to the CEO, Martin Winterkorn. But one wonders what would have happened had the company opted for exaggerating its results rather than falsifying them.

Don't get me wrong: I'm not advocating that any performance standards—particularly those that affect safety and health—should ever be presented with anything but the full truth. But this move was so brazen, so breathtakingly full of chutzpah, that it is hard to imagine VW's brand recovering for a very, very long time; nor, one imagines, will its culture.

The plot goes far beyond one or two people hiding out in a cubicle and must have involved hundreds of people building such a system and making sure it was implemented inside of 428,000 cars. One wonders what the company might have been able to accomplish instead if it put all that brainpower toward meeting emissions requirements rather than circumventing them.

Consider the alternative: VW tried—and failed—to meet the EPA’s emissions standards, after saying that they believed they had diesel engines that did the job. The EPA (which, it’s worth noting, relies primarily on self-tested data) would have—hopefully—tested its engines, found Volkswagen deficient, and fined the company. It would have been costly, yes, but it wouldn’t have been all that surprising. And VW’s credibility wouldn’t have been destroyed in the process. After all, exaggeration, for better or worse, is just how the game is played.

**MarketWatch:**

<http://www.marketwatch.com/story/white-house-quite-concerned-about-volkswagen-emissions-charges-2015-09-21>

**White House ‘quite concerned’ about Volkswagen emissions charges**

‘Quite concerned’: How White House press secretary Josh Earnest characterized Obama administration reaction to the allegations against Volkswagen.

By ROBERT SCHROEDER

The Obama administration is “quite concerned” over allegations that Volkswagen cheated on U.S. emissions tests, a White House spokesman said Monday, but added it is up to the Environmental Protection Agency to investigate the matter.

“I think it’s fair to say that we’re quite concerned by some of the reports that we’ve seen about the conduct of this particular company,” spokesman Josh Earnest told reporters at a regular briefing.

On Friday, the Environmental Protection Agency and the California Air Resources Board alleged that Volkswagen VLKAY, -17.38% VOW3, -18.19% used software in cars to make diesel-powered engines appear to have lower levels of emissions than they actually did. The company halted U.S. sales of some diesel-powered cars.

Earnest said it is ultimately the responsibility of the EPA to look at the issue, “and that’s exactly what they’re doing.”

Reaction from Congress was minimal — though that could change.

“VW should expect scrutiny from Congress, legal problems, a potential multibillion-dollar fine and a batch of uncomfortable headlines,” wrote Forbes contributor Micheline Maynard on Monday.

“If Volkswagen willfully sought to evade the Clean Air Act and fraudulently sold cars to millions of consumers with this technology, EPA should pursue the most severe action possible to deter others from doing the same,” Rep. Frank Pallone, a New Jersey Democrat, said on Friday.

“We must ensure that this does not happen again and that consumers can trust the products that they buy,” said Pallone, the top Democrat on the House Energy and Commerce Committee. The panel’s oversight and investigations subcommittee held one of the several hearings into the General Motors GM, +0.43% ignition-switch recall in April 2014.

The allegations reportedly include Volkswagen Passats made at the company’s Chattanooga, Tenn., facility in 2014 and 2015. A Volkswagen spokesperson did not immediately return a request for comment.

MarketWatch reached out to members of Tennessee’s congressional delegation, but none offered any comment.

The 1,400-acre Chattanooga plant has more than 3,200 Volkswagen employees, the company says.

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Subject: RE: Volkswagen Clips 9/21/2015

**Vox:**

<http://www.vox.com/2015/9/21/9365667/volkswagen-clean-diesel-recall-passenger-cars>

## **Volkswagen's appalling clean diesel scandal, explained**

Brad Plumer

It sounds like the sinister plot of some straight-to-DVD movie. Since 2009, Volkswagen had been installing elaborate software in 482,000 "clean diesel" vehicles sold in the US, so that the cars' pollution controls only worked when being tested by regulators. The rest of the time, the vehicles could freely spew hazardous, smog-forming nitrogen oxides.

Suffice to say, regulators were livid once they caught on. On Friday, the Environmental Protection Agency announced that Volkswagen had very flagrantly violated the Clean Air Act. Not only did the EPA order the German company to fix the affected vehicles,\*\* but the agency has the authority to levy fines as high as \$37,500 per car, a maximum of \$18 billion. (To put that in perspective, the company's pretax net income was about \$4.7 billion last year.) The US government is also mulling criminal charges.

Volkswagen, in other words, is in deep shit. The company's CEO, Martin Winterkorn, is now apologizing profusely and pledging an external probe to find out what happened. VW just halted US sales of its 2015 and 2016 clean diesel vehicles, including Passat, Jetta, Golf, and Beetle models. Meanwhile, VW's stock price plummeted on Monday morning, the company losing nearly one-fifth its market cap in a blink:

This scandal raises a few larger questions, though: Why did Volkswagen cheat in the first place? And why was it so easy for the company to evade regulators for years? To get a better handle on the story, we need to take a brief trip through the tangled history of clean diesel vehicles — the specific cars that VW was selling.

Clean diesel cars were supposed to offer great mileage and low pollution — a tricky task

One basic fact to understand here is that there are two main types of combustion engines widely available today: diesel and gasoline. And there are real trade-offs to each.

Diesel engines have long been popular in Europe, and one of their major advantages is fuel economy. Diesel fuel contains more energy per gallon than gasoline, and the diesel engines themselves are more efficient. Put it together, and the typical diesel car can travel up to 30 percent farther on a gallon of fuel than its gasoline counterpart.

But there's a catch. While diesel cars get better mileage and emit fewer carbon-dioxide emissions, they also emit more nitrogen oxides (NOx), which help form smog, and particulate matter, which can damage lungs. Both types of pollution can have serious health effects.

Historically, Europe has dealt with this trade-off by imposing looser emissions standards on diesel cars in order to pursue higher fuel economy. That's one reason European cities like Athens have a serious smog problem. In the United States, by contrast, we've imposed much stricter rules around smog and other conventional pollutants since the 1970s, one reason diesel cars haven't caught on as widely here. (Heavy trucks favor diesel engines, though.)

In recent years, however, things have shifted. The Obama administration has been ratcheting up fuel-economy standards in the United States, which puts a higher premium on mileage. At the same time, diesel technology has gradually been getting cleaner through a combination of lower-sulfur fuel, advanced engines, and new emission-control technology. So automakers have shown a renewed interest in "clean diesel" cars that, in theory, don't suffer from that trade-off between performance and pollution.

These vehicles have proved popular in the United States. Since 2009, Volkswagen has sold more than 482,000 clean diesel cars containing a four-cylinder turbocharged direct injection engine. This included versions of the Passat, Jetta, Golf, Beetle, and Audi's A3. Drivers liked them.

Except, as it turns out, VW was lying about its clean diesel cars.

Volkswagen couldn't balance performance with low pollution. So it cheated.

Since 2009, we now know, Volkswagen had been inserting intricate code in its vehicle software that tracked steering and pedal movements. When those movements suggested that the car was being tested by regulators in the laboratory for nitrogen-oxide emissions, the car automatically turned its pollution controls on. The rest of the time, the pollution controls switched off.

Regulators didn't notice this ruse for years. The problem was only uncovered by an independent group, the International Council on Clean Transportation, which wanted to investigate why there was such a discrepancy between laboratory tests and real-road performance for several of VW's diesel cars in Europe. So they worked with researchers at West Virginia University, who stuck a probe up the exhaust pipe of VW's clean diesel cars and drove them from San Diego to Seattle. (These details come from Dana Hull and Jeff Plungis' excellent Bloomberg tick-tock.)

What the researchers found was jaw-dropping. On the road, VW's Jetta was emitting 15 to 35 times as much nitrogen oxide as the allowable standard. The VW Passat was emitting 5 to 20 times as much. These cars were emitting much more pollution than they had in the labs.

Both California's air-pollution regulator and the EPA ordered Volkswagen to investigate and fix the problem in May 2014, and the company said it had worked on a software patch. Once again, the cars performed well in testing. And once again, real-world performance didn't match up. At that point, regulators started grilling Volkswagen's engineers about the discrepancy, and the company eventually cracked, admitting the existence of these defeat devices, which had been carefully hidden in the software code. Hence the scandal.

Volkswagen hasn't explained exactly why it cheated, but outside analysts have a pretty good guess. The NOx emission controls likely degraded the cars' performance when they were switched on — the engines ran hotter, wore out more quickly, and got worse mileage. Some experts have suggested that the emission controls may have affected the cars' torque and acceleration, making them less fun to drive. (Indeed, some individual car owners have been known to disable their cars' emission controls to boost performance, though this is against the law.)

In other words, Volkswagen wasn't able to produce diesel cars that had the ideal mix of performance, fuel economy, and low pollution. (Or, at least, they couldn't do this profitably.) So they "solved" this trade-off by sacrificing cleanliness and loosening the emission controls. And they accomplished this via software designed to deceive regulators. This was wildly illegal, and they got caught.

The VW scandal exposes problems with current emission tests

Volkswagen isn't the first company to cheat on its emission tests. As Frank O'Donnell of Clean Air Watch pointed out to me, the EPA caught a number of truck manufacturers, including Caterpillar and Volvo, doing something similar back in 1998 — programming their diesel trucks to emit fewer pollutants in lab tests than they did on the road. (The trucks would slowly emit more and more NOx as they traveled longer distances at constant speed, something that labs couldn't catch.)

Part of the problem here is that regulators tend to test these vehicles in laboratory conditions, which are fairly predictable and hence easier to game. Combined with the fact that automakers are developing ever-more-elaborate software that can control and fine-tune engines, and there are ample opportunities for fraud.

EUROPEAN REGULATORS WILL SOON START REQUIRING ON-ROAD EMISSIONS TESTING

In theory, there are ways to make cheating harder. Starting with model year 2017 vehicles, European regulators are going to start requiring automakers to test their passenger cars on the road in addition to laboratory testing. That sort of regime would've made it harder for Volkswagen to do what it did. But it's also unlikely that this is the last time we'll see an automaker come up with a fiendishly clever way to cheat.

Meanwhile, the VW scandal raises another issue surrounding car regulations, as Alex Davies explains at Wired. Modern-day cars feature complex computer systems and software. And, right now, this software is protected under the 1998 Digital Millennium Copyright Act — it's illegal to fiddle with it. The ostensible rationale is to make it harder for consumers to tamper with emissions controls. But these protections also make it harder for independent researchers to scrutinize that code and identify problems like VW's little emissions trick. Some experts have proposed DMCA exemptions to allow researchers to test and evaluate these engines, but so far automakers and the EPA have resisted this. Presumably, if those exemptions had existed, Volkswagen might've been caught sooner.

Volkswagen is now facing serious consequences

At this point, Volkswagen has been caught red-handed and has to face the consequences. The company straight-up lied about its cars and exacerbated the country's air-pollution problem. (Getting a precise estimate of the health consequences here could be difficult, since it depends on where the cars were located, how much extra smog actually resulted, and so forth.)

In response, the company has pledged to stop selling 2015 and 2016 Volkswagen and Audi models equipped with clean diesel engines and will likely end up recalling the 482,000 cars now on the road to fix the software.\*\* It's unclear how many customers will want to "fix" the problem, however, since, again, any patch might degrade gas mileage and/or performance.

Meanwhile, Volkswagen could face criminal prosecution — not to mention billions of dollars in fines, potentially. The Clean Air Act allows a fine of \$37,500 per noncompliant vehicle. If the EPA really wanted to lower the hammer, that would amount to \$18 billion. Again, VW's pretax net income was about \$4.7 billion last year, so that would be a crippling hit. Volkswagen is the world's biggest automaker by sales, but it's not quite as profitable as competitors like Toyota and has already struggled to gain a foothold in the US market. This could be a huge deal for the company.

It also raises questions about the future of clean diesel vehicles. Clean diesel appears to be a promising technology — in theory, these vehicles could get both excellent mileage and low emissions. But this scandal raises serious questions about how well automakers can actually achieve both goals in practice.

\*\* For any concerned car owners, the models expected to be recalled include: The 2009-2015 VW Beetle 2.0L TDI; 2009-2015 VW Golf 2.0L TDI; 2009-2015 VW Jetta 2.0L TDI; 2009-2015 Audi A3 2.0L TDI; and 2014-2015 VW Passat 2.0L TDI.

#### **Ledger Gazette:**

<http://www.ledgergazette.com/epa-accuses-vw-of-cheating-on-emissions-tests/79148/>

#### **EPA accuses VW of cheating on emissions tests**

BY JORGE WEINER ON SEPTEMBER 21, 2015 BUSINESS

VW halted sales of the models involved on Sunday and said it's cooperating with the probe and ordered its own external investigation into the issue.

"The charges here are truly appalling: that Volkswagen knowingly installed software that produced much higher smog-forming emissions from diesel vehicles in the real world than in pre-sale tests", said Frank O'Donnell, president of Clean Air Watch, a Washington-based advocacy group.

VW is to stop selling four cylinder diesel cars in the USA after the firm was found to have rigged emissions test on up to 500,000 vehicles, it has emerged. The reality is that Volkswagen will face huge fines, rumoured to be as high as 18 billion US dollars.

German competitors BMW AG and Daimler AG said on Monday they aren't aware of a similar USA probe into their cars.

Once on the road, the cars produced nitrogen oxide pollutants at up to 40 times the legal standard.

The EPA and California authorities acted quickly after being told of the violation, German said.

Volkswagen, which recently edged out Japan's Toyota to become the world's top-selling automaker, has had a hard year, its share price having fallen from more than 250 euros amid signs of faltering sales in the US and China. He said he was "deeply sorry" for the violation of United States rules. The models include Jetta, Beetle, Golf, Passat and Audi A3.

Stefan Bratzel, director at the Center for Automotive Management, a research group, said the damage to VW's image would be as great as the financial fines.

"Our climate policy stands for itself and I think it's internationally recognized that Germany is one of the drivers on the way to (the global climate summit in) Paris", he said. The potential wonderful is \$37,500 per vehicle and 482,000 autos are a part of the case, yielding a possible superb of greater than \$18 billion, Giles stated on a telephone name with reporters Friday.

The EPA in November 2014 hit South Korean auto makers Hyundai Motor Co. and Kia Motors Corp. with a record \$100 million penalty for overstating fuel-economy claims and forced the companies to cough up another \$200 million in regulatory credits.

The cars allegedly do so with software that detects when the vehicle is undergoing emissions testing, and then turns full emissions controls on only during the test. When vehicles are being driven normally, the computer disables the emissions controls.

According to the The New York Times, this latent software within numerous Volkswagen vehicles switches on emissions control systems only during an inspection. The California Air Resources Board issued a similar letter.

"Our goal is to ensure that the affected cars are brought into compliance, to dig more deeply into the extent and implications of Volkswagen's efforts to cheat on clean air rules and to take appropriate further action".

The feature, which the EPA called a "defeat device", masks the true emissions only during testing.

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**From:** Gong, Kristiene

**Sent:** Monday, September 21, 2015 1:57 PM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguillard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/21/2015

**Washington Post:**

[http://www.washingtonpost.com/business/economy/vw-shares-plunge-as-epa-accuses-automaker-of-cheating/2015/09/21/3c7b2f2e-607b-11e5-8e9e-dce8a2a2a679\\_story.html](http://www.washingtonpost.com/business/economy/vw-shares-plunge-as-epa-accuses-automaker-of-cheating/2015/09/21/3c7b2f2e-607b-11e5-8e9e-dce8a2a2a679_story.html)

**VW under fire amid EPA accusations it cheated on emissions tests**

By Thad Moore

Volkswagen shares plunged Monday after U.S. regulators accused the German automaker of cheating on emissions tests, alleging that nearly 500,000 cars weren't meeting federal standards.

An apology Sunday from VW's chief executive did nothing to temper anxious investors, who wiped out nearly a fifth of the company's value in a single day. VW's stock closed the day Monday at 132.20 euros, down 19 percent.

The selloff comes on the heels of Environmental Protection Agency allegations that the automaker had designed software to let its diesel cars detect when they were being tested for emissions.

VW, one of the world's largest automakers, has halted sales of some vehicles in the United States and pledged to cooperate with regulators. "We at Volkswagen will do everything that must be done in order to re-establish the trust that so many people have placed in us, and we will do everything necessary in order to reverse the damage this has caused," Martin Winterkorn, VW's chief executive, said in a statement.

In the lab, they met standards. On the road, regulators say, they emitted nitrous oxide at up to 40 times federal standards. The software, known as a "defeat device," was installed in some 482,000 cars, spanning model years 2009 through 2015, regulators say.

The EPA and California regulators began asking questions in May 2014 after West Virginia University researchers published a study that found lab results didn't match up with road tests.

For more than a year, VW told regulators that the difference owed to "various technical issues and unexpected in-use conditions," the EPA said in a letter sent to the automaker Friday. But company officials didn't admit to the practice until earlier this month when regulators threatened not to approve its 2016 line of diesel cars.

The years-long practice could carry a hefty price tag for the automaker. The company could be fined \$37,500 for each car it sold with a defeat device installed — a potential fine of \$18 billion.

"The company will have to recall nearly 500,000 affected cars, which will cost it millions of dollars, and that's even before the damage to its brand and potential fines," Michael Hewson, chief market analyst at CMC Markets, told the Associated Press.

The revelation also led Consumer Reports[consumerreports.org] to pull its recommendation of VW's Jetta and Passat diesel model. (The magazine said it would reconsider its decision once the automaker introduces a fix to lower emissions.)

For his part, Winterkorn apologized Sunday, saying the company would cooperate "with transparency and urgency."

"I personally am deeply sorry that we have broken the trust of our customers and the public," he said in a statement. "We do not and will not tolerate violations of any kind of our internal rules or of the law."

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**From:** Gong, Kristiene

**Sent:** Monday, September 21, 2015 11:56 AM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguiard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/21/2015

**NY Times:**

<http://www.nytimes.com/2015/09/22/business/international/volkswagen-shares-recall.html>

**Volkswagen Denied Deception to E.P.A. for Nearly a Year**

By JACK EWING SEPT. 21, 2015

FRANKFURT — For nearly a year, Volkswagen officials told the Environmental Protection Agency that discrepancies between the formal air-quality tests on its diesel cars and the much higher pollution levels out on the road were the result of technical errors, not a deliberate attempt to deceive Washington officials.

But early this month, Volkswagen executives finally made a startling admission: The diesels it sold in the United States had software deliberately designed to cheat on the tests.

The company was evidently concerned that actually meeting the federal emissions standards would degrade the power of the engines, which it marketed as comparable in performance to gasoline engines. Meeting the standard would also undercut the fuel efficiency that is one of the main selling points of diesels.

The admission came only after the E.P.A. threatened to withhold approval for Volkswagen's new 2016 models, according to letters sent to company officials by the E.P.A. and California regulators.

Since news of that mass deception broke on Friday, Volkswagen has scrambled to conduct damage control, with its chief executive issuing an apology and the company saying it would not sell its 2015 and 2016 diesel cars in the United States.

But that did not stop Volkswagen shares from plummeting when trading opened in Europe on Monday. And the apology has not relieved pressure on Martin Winterkorn, the Volkswagen chief executive, whom analysts said would have tough questions to answer, seeking to know when he and other top executives at the company, which is ruled from the top with Germanic precision, were aware of the diesel deception.

Adding to pressure on Volkswagen, the German government said on Monday that it would also begin an inquiry to make sure that Volkswagen and other carmakers are complying with laws on auto emissions.

The E.P.A. disclosed the yearlong series of letters with Volkswagen as part of accusations it made against the company on Friday. The agency will require the company to recall nearly half-a-million vehicles equipped with 2-liter diesel engines dating to the 2009 model year. Volkswagen also faces fines that could run into the billions of dollars.

Volkswagen shares plunged about 20 percent on Monday, as investors registered alarm at the damage the company could suffer.

Mr. Winterkorn issued an apology on Sunday, saying the company had "broken the trust of our customers and the public."

But the sophistication of the software used to manipulate emissions tests in the United States, and extensive attempts by Volkswagen to deflect official scrutiny before admitting misconduct this month, are sure to raise questions about Mr. Winterkorn's effectiveness only months after he survived an internal power struggle.

"Either he knew, or he didn't know, which is even worse," said Ferdinand Dudenhöffer, a professor at the University of Duisburg-Essen who is a longtime Volkswagen critic. "Any politician in his situation would have to resign."

Volkswagen's supervisory board, which Mr. Winterkorn reports to, will hold a regularly scheduled meeting on Friday, and it is certain to discuss the E.P.A. action.

After being confronted last year with evidence that some diesel models did not comply with pollution standards under certain conditions, Volkswagen executives originally offered technical explanations, according to a letter of complaint sent to the company by the E.P.A. and the California Air Resources Board.

It was only on Sept. 3, according to the letters, that executives at Volkswagen of America, the company's United States unit, admitted that cars equipped with the 2-liter diesel motors contained the software.

The software measured factors such as the position of the steering wheel, the vehicle's speed and even barometric pressure to sense when the car was being subjected to testing, the E.P.A. said. The car then configured itself to reduce emissions of nitrogen oxide, a gas that is a major contributor to smog and is linked to an array of respiratory ailments including asthma, emphysema and bronchitis, the E.P.A. said on Friday.

Volkswagen is known for being a tightly controlled, autocratic organization, raising questions about how such a sophisticated system could have been installed in nearly half a million vehicles without knowledge of top management.

The plunge in Volkswagen shares was a clear indication that investors believe that company profit and sales could suffer because of the E.P.A. accusations. However, Volkswagen is relatively immune to stock market pressure because only 12 percent of its voting shares are traded. Porsche Automobil Holding, controlled by members of the Porsche family, holds a slight majority. The state of Lower Saxony owns 20 percent and the sovereign wealth fund of Qatar owns 17 percent.

Stephan Weil, the prime minister of Lower Saxony, where Volkswagen has its headquarters and major manufacturing operations, said in a statement on Monday, "Manipulation of an emissions test is completely unacceptable and without any justification."

But Mr. Weil said consequences could be discussed only after a thorough investigation of the circumstances.

In Berlin, the government of Chancellor Angela Merkel said it would ask carmakers for information as the first step in an inquiry.

"We expect reliable information from carmakers so that the Federal Office for Vehicles can check whether similar manipulation in the exhaust systems has taken place in Germany or Europe," Andreas Kübler, a spokesman for the Environment Ministry, told reporters in Berlin.

The European Commission has contacted Volkswagen as well as the E.P.A. for details about the accusations, a commission spokeswoman said.

"It is premature to comment on whether any specific immediate surveillance measures are also necessary in Europe and whether vehicles sold by Volkswagen in Europe are also affected," the spokeswoman said in an email. "We are taking the matter very seriously."

South Korea also planned to test Volkswagen cars to make sure they were in compliance with pollution rules, according to news reports.

More than half of all vehicles sold in Europe are diesels, which are popular because they typically offer better fuel economy than gasoline. European Union pollution rules were more favorable to diesels than United States rules, but they have been progressively tightened. The most recent standard, known as Euro 6, took effect for all new cars sold on Sept. 1.

Technology exists to reduce the amount of nitrogen oxides emitted by diesels. But the technology also tends to reduce fuel economy as well as performance. The software installed by Volkswagen on vehicles sold in the United States avoided this trade-off, which could have come as a disappointment to American customers, by scaling back pollution controls when the car was not being tested.

The accusations by the E.P.A. are a blow to Volkswagen's efforts to build up its meager market share in the United States, in part by promoting "clean diesel" technology.

The silver lining for Volkswagen, though, may be that its most profitable vehicles in the United States are Porsche and Audi cars not affected by the E.P.A. action. The cars affected are Volkswagen Golf, Jetta, Beetle and Passat models from 2009 through 2015 that are equipped with 2-liter diesel engines.

Another silver lining for Volkswagen may be that diesel powered cars account for only a tiny fraction of sales in China, which is the company's largest market.

Among Audi models, only the compact A3 is affected in the United States. The A3 accounted for less than a fifth of the 111,000 vehicles that Audi sold in the United States from January through August, and only a fraction of those A3s would have been equipped with diesels.

The E.P.A. said on Friday that Volkswagen would be required to recall the affected vehicles for repairs to make them compliant with smog regulations. Car owners would not have to pay for the repairs. Many owners may not bother, though, because the changes are likely to reduce fuel consumption and performance.

John Schilling, a Volkswagen spokesman, said on Sunday that the company would stop selling 2015 and 2016 Volkswagen and Audi models equipped with the 2-liter diesel engines, which the company had marketed as "clean diesel." The company will also stop selling used cars that have the engines, Mr. Schilling said.

He said he did not know how many models would be stuck on dealer lots as a result of the decision. This month, Volkswagen had said that 23 percent of new cars sold in August in the United States were diesels, or 7,400 vehicles. Some diesels, such as those used in Volkswagen S.U.V.s, are not affected by the E.P.A. action.

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**From:** Gong, Kristiene

**Sent:** Monday, September 21, 2015 10:54 AM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguiard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/21/2015

**AP (via US News & World Report)**

<http://www.usnews.com/news/business/articles/2015/09/21/vw-stock-crashes-after-admitting-it-rigged-us-emission-tests>

**Faulty Tests Cost VW Billions**

By FRANK JORDANS and PAN PYLAS, Associated Press

BERLIN (AP) — Around 15 billion euros (\$16.9 billion) was wiped off the market value of Volkswagen AG on Monday following revelations that the German carmaker rigged U.S. emissions tests for about 500,000 diesel cars.

By midday trading in Frankfurt, Volkswagen's share price was 19.3 percent lower at a three-year low of 130.20 euros. Its dramatic fall weighed heavily on Germany's main stock index, the DAX, which underperformed its peers in Europe with a 0.6 percent decline.

Volkswagen's market woes Monday follow a weekend that saw the company's reputation for probity seriously damaged by revelations from the Environmental Protection Agency in the U.S. that it had skirted clean air rules. All told, the EPA indicated that VW faces fines that could run up to more than \$18 billion.

The EPA said VW used a device programmed to detect when the cars are undergoing official emissions testing. The software device then turns off the emissions controls during normal driving situations, allowing the cars to emit more than the legal limit of pollutants.

Volkswagen marketed the diesel-powered cars, which account for about 25 percent of sales, as being better for the environment. The cars, built in the last seven years, include the Audi A3, VW Jetta, Beetle, Golf and Passat models.

"The company will have to recall nearly 500,000 affected cars, which will cost it millions of dollars, and that's even before the damage to its brand and potential fines," said Michael Hewson, chief market analyst at CMC Markets.



The agency has ordered VW to fix the cars at its own expense but said car owners do not need to take any immediate action. The EPA insisted that the violations do not pose any safety hazard and said the cars remain legal to drive and sell while Volkswagen comes up with a plan to recall and repair them. However, it said the cars posed a threat to public health.

The EPA also indicated the scale of the fines that could be imposed on VW. It said the carmaker could be hit up to \$37,500 per vehicle for the violations — a total of more than \$18 billion. The California Air Resources Board is also investigating.

Volkswagen has had a difficult year, its share price having fallen from over 250 euros amid signs of faltering sales in the U.S. and China.

VW edged out Toyota to become the world's top-selling automaker the first half of 2015. But a hit to its reputation from the emissions revelations could hamper its efforts at a sales rebound in the U.S.

If other regulatory authorities decide VW has a case to answer, then the carmaker faces the potential for even bigger fines.

"The news so far revolves around the U.S. impact, but if European investigators become interested the potential penalties could multiply very quickly," said Chris Beauchamp, senior market analyst at IG.

**Washington Examiner:**

<http://www.washingtonexaminer.com/volkswagen-sorry-promises-probe-on-epa-violations/article/2572497>

**Volkswagen 'sorry,' promises probe on EPA violations**

By DANIEL CHAITIN (@DANIELCHAITIN7) • 9/20/15 3:23 PM

Volkswagen apologized Sunday following allegations by the Environmental Protection Agency and the state of California that hundreds of thousands of diesel cars made by the German automaker are breaking emissions laws in the United States.

"The Board of Management at Volkswagen AG takes these findings very seriously," wrote Martin Winterkorn, CEO of Volkswagen. "I personally am deeply sorry that we have broken the trust of our customers and the public. We will cooperate fully with the responsible agencies, with transparency and urgency, to clearly, openly, and completely establish all of the facts of this case. Volkswagen has ordered an external investigation of this matter."

On Friday, the EPA and California charged Volkswagen with willfully installing software in its 4-cylinder diesel cars that would allow cars to bypass emission standards. The cars cited for violations include signature Volkswagen cars manufactured between 2009 and 2015, including the Jetta, Passat, Beetle and Golf, as well as the A3 from Audi, Volkswagen's luxury line.

All together, about 482,000 diesel passenger cars sold in the United States since 2008 are included in the allegations.

The statement promises that Volkswagen will "re-establish trust" it may have lost and that the company will reverse any damage done.

"We do not and will not tolerate violations of any kind of our internal rules or of the law," Winterkorn added.

The EPA issued a notice of violation to Volkswagen, while the state of California sent an In-Use Compliance letter. Both the EPA and the California Air Resources Board are conducting separate investigations into the alleged misbehavior.

Recalls are likely, and the combined fines could add up to \$18 billion if the result of the investigations support the allegations.

The EPA alleges that the Volkswagen cars are fitted with software to trick emission testers, but that under normal operation emit nitrogen oxides at up to 40 times the standard. Under the Clean Air Act, such an instrument is classified as a "defeat device."

"Using a defeat device in cars to evade clean air standards is illegal and a threat to public health," said Cynthia Giles, EPA assistant administrator for the Office of Enforcement and Compliance Assurance. "Working closely with the California Air Resources Board, EPA is committed to making sure that all automakers play by the same rules. EPA will continue to investigate these very serious matters."

### **The Epoch Times:**

<http://www.theepochtimes.com/n3/1755607-volkswagen-circumvents-epa-rule-its-not-the-first-time/>

### **Volkswagen Skirts EPA Rules; It's Not the First Time**

By Arleen Richards

Volkswagen Group of America admitted to sidestepping clean air standards after the EPA and California's clean air watchdog confronted the German automaker with evidence of high in-use emissions from light-duty diesels.

On Friday, Sept. 18, the EPA slapped VW with a notice of violation for using sophisticated software to circumvent national emissions standards. The software, which the EPA calls a "defeat device," is designed to implement full emissions control systems when the car is undergoing state emissions testing. During normal driving, the emissions control is turned off, permitting the significantly harmful diesel fumes to be expelled—40 times more than allowed under the Clean Air Act. VW and the California Air Resources Board (CARB) have both initiated investigations.

Volkswagen CEO Dr. Martin Winterkorn, on Sunday, apologized for breaking the public's trust and vowed to cooperate fully with agency investigations.

He ordered an internal investigation, saying in a statement, "We do not and will not tolerate violations of any kind of our internal rules or of the law."

But this episode is not the first time the EPA or CARB has had run-ins with VW. In the past, both agencies charged VW with similar violations, which resulted in penalties.

#### **Defective Oxygen Sensors**

VW previously failed to report its discovery of emission defects in at least 329,000 of its 1999, 2000, and 2001 Golf, Jetta, and New Beetle vehicles.

In May 2001, after conducting a random test, the EPA identified a problem with tailpipe emissions in the 1999 model vehicles caused by a failed oxygen sensor. It turns out, VW knew about the problem for a year already—since it had received numerous warranty claims associated with cracked oxygen sensors—but failed to report it. According to the Clean Air Act, any emission-related defect found in 25 vehicles or engines of the same model year has to be reported within 15 days.

VW spent \$26 million in January 2002 to recall all the vehicles and replace or repair the part. Another estimated \$660,000 was spent on an enhanced defect tracking system.

The EPA finally settled its case with VW in 2005, penalizing the delinquent car maker \$1.1 million.

The state of California has been working closely with the EPA in testing VW cars and issued a separate notice of violation to VW in the current case.

California has been a leader in clean energy investments and set the stage in 2006 for transitioning to a sustainable, low-carbon future with the passage of AB 32, a law requiring sharp reduction in greenhouse gases. Since then, several legislative initiatives have been implemented to build the next generation of clean, fuel-efficient cars.

The CARB implements the state's vehicle regulations through a vigorous certification process, as well as compliance and enforcement programs. It regularly tests vehicles to ensure compliance with air quality standards.

In 2004, VW settled a case with CARB for \$552,500 for selling cars in California that had not been properly certified. VW admitted to selling 84 new 2002 vehicles from several retail locations throughout the state, attributed to an error in its electronic ordering system.

The EPA is expected to compel VW to issue a recall notice in order to remedy the current emissions problem, which could take up to a year after identifying the appropriate corrective action and a recall plan.

#### **Jalopnik:**

<http://jalopnik.com/volkswagen-tells-dealers-to-halt-sales-of-new-tdi-cars-1731923302>

#### **Volkswagen Tells Dealers To Halt Sales Of New TDI Cars Amid Diesel Cheating Scandal**

Alanis King

Following the government investigation of Volkswagen's diesel emissions, The Detroit News reports the automaker ordered its U.S. dealerships to halt sales of new 2016 and remaining 2015 TDI car models with 2.0-liter diesel engines.

According to the Environmental Protection Agency and California Air Resources Board, VW dodged federal emissions requirements for some 482,000 of its diesel cars — including the Passat, Jetta, Golf, Beetle, SportWagens and Audi A3 — manufactured from 2009 to 2015. The models contain a "defeat device" which exists to detect when the car is under testing conditions, allowing for it to activate the full emissions-control systems only in those circumstances.

In other words, environmental officials say that the street cars are emitting between 10 and 40 times the amount of allowable nitrogen oxide pollution, which is not only illegal but harmful to both the environment and public.

The EPA is taking action on 2016 diesel models. Christopher Grundler, director of the EPA Office of Transportation of Air Quality, said that the government will not grant VW a "certificate of conformity" to sell the 2016 models with 2.0-liter diesel engines, meaning they cannot be sold.

VW dealers have been waiting for the 2016 models to replenish showrooms. Most U.S. VW dealers don't have any remaining 2015 diesel cars to sell.

VW is barred from selling 2016 model vehicles with the 2.0 liter diesel engine until "they get answers to the questions of how these vehicles are being operated. Volkswagen couldn't explain why we're getting these excess emissions," Grundler said.

Meanwhile, whatever 2015 models remain on lots have also been ordered not to be sold. As Automotive News notes, four-cylinder TDI models account for 20 to 25 percent of VW's U.S. sales, so this is going to hurt.

In addition, VW has ordered an outside investigation to find out what happened and "reverse the damage this has caused," CEO Martin Winterkorn said in an apologetic statement.

According to the EPA, the agency is now checking to see if other automakers are bypassing the laws on diesel engines as well.

While no official recall is underway just yet, the News reports:

EPA said VW violated federal law and, in theory, could face fines of up to \$18 billion — \$37,500 per vehicle — as well as criminal prosecution. Both agencies issued notices of non-compliance to VW Friday, a step necessary before ordering a recall.

The EPA will not take action to stop VW owners from driving their personal cars until a solution is made available, but VW did remove its “clean diesel” advertisements from YouTube and television.

**CBC News (Canada):**

<http://www.cbc.ca/news/business/volkswagen-emissions-rigging-1.3236548>

**Volkswagen shares plunge on emissions rigging scandal**

Consumer Reports suspends 'recommended' rating for Jetta and Passat diesels

CBC News Posted: Sep 21, 2015 9:00 AM ET Last Updated: Sep 21, 2015 9:00 AM ET

Volkswagen's CEO apologized but investors were not in a forgiving mood as the company's stock plunged almost 20 per cent Monday following revelations late last week that the automaker had rigged emissions tests for almost 500,000 diesel cars in the U.S.

"I personally am deeply sorry that we have broken the trust of our customers and the public," Martin Winterkorn said in a weekend statement.

On Friday, the U.S. Environmental Protection Agency (EPA) revealed that half a million diesel-powered VWs had been programmed to bypass emission controls except during emissions tests. The cars include the Audi A3, VW Jetta, Beetle, Golf and Passat models made in the last seven years.

The EPA ordered VW to fix the cars and VW said it would co-operate with regulators. But the damage to the automaker's image is nothing less than catastrophic.

VW had marketed its diesel-powered cars as being better for the environment. The Associated Press reports, citing an anonymous source with knowledge of the matter, that VW has told dealers to stop selling its 2015 diesel cars with 2.0-litre engines.

The EPA said the VW cars under investigation seemed to pass emissions tests, but in the real world, were actually emitting up to 40 times the national standard for nitrogen oxide, which is linked to asthma and lung illnesses.

Consumer Reports announced it would remove its "recommended" rating from the Jetta and Passat diesels until it can retest the vehicles.

VW could face fines of up to \$18 billion US, according to the EPA.

Volkswagen shares plunged 19.4 per cent in Monday trading in Germany, chopping \$21 billion Cdn from the market value of the company.

"The company will have to recall nearly 500,000 affected cars, which will cost it millions of dollars, and that's even before the damage to its brand and potential fines," said Michael Hewson, chief market analyst at CMC Markets.

Diesel-powered models account for about a quarter of VW's sales.

Impact in Canada unclear

At this point, it isn't clear what the revelations mean for owners of VW diesels in Canada. Volkswagen Canada told CBC News on Friday that it first learned of the EPA action earlier that morning. It said it would co-operate with Environment Canada "to understand the implications for the Canadian market and what actions, if any, may be required in Canada."

Environment Canada, for its part, said it was in talks with the EPA "to further examine this issue and assess potential implications for Canada." Environment Canada also said it collaborates on emissions verification activities with the U.S. EPA "to ensure our common environmental outcomes are achieved," and pointed out that its emissions standards are aligned with U.S. standards.

The EPA and Environment Canada both stressed that the effectiveness of a vehicle's air pollutant control devices is not a safety issue. The cars remain legal to drive.

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**From:** Gong, Kristiene

**Sent:** Monday, September 21, 2015 10:35 AM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguiard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/21/2015

**NY Times:**

[http://www.nytimes.com/2015/09/21/business/international/volkswagen-chief-apologizes-for-breach-of-trust-after-recall.html?\\_r=0](http://www.nytimes.com/2015/09/21/business/international/volkswagen-chief-apologizes-for-breach-of-trust-after-recall.html?_r=0)

### **Volkswagen to Stop Sales of Diesel Cars Involved in Recall**

By JACK EWING and CORAL DAVENPORTSEPT. 20, 2015

FRANKFURT — Volkswagen said on Sunday that it would halt sales of cars in the United States equipped with the kind of diesel motors that had led regulators to accuse the German company of illegally installing software to evade standards for reducing smog.

John Schilling, a Volkswagen spokesman, said that the company would stop selling 2015 and 2016 Volkswagen and Audi models equipped with 4-cylinder turbo diesel engines, which the company has marketed as "clean diesel." The company will also stop selling used cars that have the engines, Mr. Schilling said.

He said he did not know how many models would be stuck on dealer lots as a result of the decision. Earlier this month, Volkswagen had said that 23 percent of new cars sold in August in the United States were diesels, or 7,400 vehicles.

The confirmation of the halt in sales came on the same day that Martin Winterkorn, the chief executive of Volkswagen, apologized for conduct that prompted the Environmental Protection Agency to order Volkswagen to recall nearly half a million vehicles.

An employee on the Audi A3 limousine. The recall involves four-cylinder Volkswagen and Audi vehicles from the model years 2009 to 2015. Credit Szilard Koszticsak/European Pressphoto Agency

Volkswagen could face billions of dollars in fines for what the E.P.A. said was a deliberate attempt to evade rules on emissions. The decision to stop sales was first reported by The Wall Street Journal.

"I personally am deeply sorry that we have broken the trust of our customers and the public," Mr. Winterkorn said in a statement.

He said the company would “cooperate fully” with the authorities and order its own independent investigation into the accusations.

In his statement, Mr. Winterkorn did not contest assertions by the E.P.A. that Volkswagen sold cars equipped with software that could detect when periodic state government emissions testing was taking place.

Only during such tests are the cars’ full emissions control systems turned on. During normal driving situations, the controls were turned off, allowing the cars to spew as much as 40 times the pollution allowed under the Clean Air Act, the E.P.A. said.

Diesel-driven cars have enjoyed something of a renaissance in recent years, shedding much of their old stigma for being dirty, clanky and sluggish to drive, said Karl Brauer, an analyst at Kelley Blue Book. And in the United States, he said, Volkswagen has clearly led the pack — offering diesel vehicles that performed just like their gasoline counterparts.

“Now, we have to wonder if the technology really advanced as far as we thought at VW,” Mr. Brauer said. “They must have had a problem making it work in a way that delivered truly clean diesel. At least clean enough to meet the regulations.”

Mr. Brauer said the higher nitrous oxide emissions probably allowed better drivability. Fuel economy also improves with more nitrous emissions, and engines can run cooler, and thus wear out more slowly.

“They must have had a mix of performance, economy and durability that they liked, but realized they couldn’t achieve that and still get the emissions,” he said.

Diesels in particular are known — and marketed — these days as having tremendous torque, or low-end thrust from a stop. If achieving the required emissions affected the torque, making it anemic, then “drivers are going to scratch their heads, thinking, isn’t this why I got a diesel?” Mr. Brauer said.

Volkswagen was going through a difficult period even before the accusations became public on Friday. Mr. Winterkorn recently survived a power struggle with the chairman of Volkswagen’s supervisory board, Ferdinand Piëch, a scion of the Porsche family who dominated the company for more than two decades before resigning in April.

Following Mr. Piëch’s departure, some analysts have raised questions about whether Mr. Winterkorn would be strong enough to hold together the sprawling Volkswagen empire, which also includes Audi and Bentley luxury cars, Porsche and Lamborghini sports cars, Scania and MAN heavy trucks, and Ducati motorcycles.

Although Volkswagen recently surpassed Toyota as the world’s biggest automaker measured by the number of cars sold, it is significantly less profitable than its Japanese rival and far weaker in the United States market.

A push by Volkswagen to increase sales in the United States, which included building a factory in Chattanooga, Tenn., to produce Passat sedans, has fallen short.

“For Volkswagen, it’s a huge scandal,” said Ferdinand Dudenhöffer, a professor at the University of Duisburg-Essen, who follows the automobile industry. “The timing is extremely unfortunate.”

Professor Dudenhöffer said the case could damage all German automakers, which have tried to build acceptance in the United States for diesel engines, a sector in which they believe they have a technological lead.

Until recently, Professor Dudenhöffer said, the United States applied stricter standards to diesel engines than those applied by European regulators. But the European authorities, concerned about the health effects of diesel pollution, have tightened standards, prompting complaints from the auto industry.

Professor Dudenhöffer said that as a result of the E.P.A. action, Mr. Winterkorn could come under pressure to resign.

“Winterkorn was already damaged,” Professor Dudenhöffer said. “Now there is an accusation of illegal behavior. This story is not over.”

E.P.A. officials issued the car company a notice of violation and said it had admitted to the use of a so-called defeat device.

The recall involves 4-cylinder Volkswagen and Audi vehicles from the model years 2009 to 2015.

The software was designed to conceal the cars’ emission of nitrogen oxide, a pollutant that contributes to the creation of ozone and smog, which are linked to a range of health problems, including asthma attacks, other respiratory diseases and premature death.

Disengaging the pollution controls on a diesel-fueled car can yield better performance, including increased torque and acceleration.

California has issued a separate notice of violation to the company. California, the E.P.A. and the Justice Department are working together on an investigation of the allegations.

Over the next year, E.P.A. officials said, owners of the affected vehicles should expect to receive recall notices from Volkswagen, including information about how to get their cars repaired at no cost to them. The recall covers roughly 482,000 diesel passenger cars sold in the United States since 2009.

Affected diesel models include the 2009-15 Volkswagen Jetta, 2009-15 Beetle, 2009-15 Golf, 2014-15 Passat and 2009-15 Audi A3.

The American investigation could ultimately result in fines or penalties for the company. Under the terms of the Clean Air Act, the Justice Department could impose fines of as much as \$37,500 for each recalled vehicle, for a possible total penalty of as much as \$18 billion.

The notice of violation came days after the company promoted plans at the Frankfurt International Motor Show to introduce 20 plug-in hybrid or all-electric vehicles by 2020 as part of a campaign to reduce vehicle emissions.

Mr. Winterkorn said in his statement on Sunday that Volkswagen would “do everything necessary in order to reverse the damage this has caused.”

“This matter has first priority for me, personally,” he said, “and for our entire board of management.”

#### **Financial Times:**

<http://www.ft.com/intl/cms/s/0/c4f4745c-5f98-11e5-9846-de406ccb37f2.html#axzz3mNpg5JFM>

#### **VW apologises for cheating US car exhaust emissions tests**

Andy Sharman in London

The chief executive of Volkswagen has apologised and ordered an external investigation into findings that the carmaker cheated on US emissions tests to make its vehicles appear less polluting.

In a statement on Sunday, Martin Winterkorn, chief executive of the German carmaker, said the board of management took the findings “very seriously”.

He added: "I personally am deeply sorry that we have broken the trust of our customers and the public. We will co-operate fully with the responsible agencies, with transparency and urgency, to clearly, openly and completely establish all of the facts of this case."

The Environmental Protection Agency on Friday said diesel variants of several VW and Audi models sold in the US over six years — including the VW Passat, Beetle and Audi A3 — had been fitted with sophisticated algorithms designed to deceive the laboratory testing regime.

The authorities ordered VW to recall 482,000 cars because of the use of so-called defeat devices — which use software to detect when the car is being tested and runs treatments to reduce nitrogen oxides. Once out on the road, the cars were discovered to produce pollutants up to 40 times the legal limits.

The discovery leaves the German carmaker — which has admitted to using the defeat devices — potentially facing billions of dollars in fines and warranty costs, possible criminal charges for executives and class-action lawsuits from US drivers.

Mr Winterkorn did not say who would be carrying out the external investigation, and the company declined to provide further details.

It was Mr Winterkorn's first formal statement on an issue that also threatens to seriously undermine its attempts to turnaround its sputtering performance in the US.

Max Warburton, analyst at Bernstein Research, said: "The best case for VW is probably still a multibillion-dollar fine, pariah status in the US with government — and possibly consumers — [and] damage to its leading position in diesel in the US."

VW now has to initiate a process to fix the cars' emissions systems, though the EPA has said the violations do not present a safety hazard and the vehicles remain legal to drive and resell. Owners of cars of models covering the 2009-2015 period do not need to take any action, the agency said.

I personally am deeply sorry that we have broken the trust of our customers and the public. We will co-operate fully with the responsible agencies, with transparency and urgency, to clearly, openly, and completely establish all of the facts of this case

- Martin Winterkorn, VW chief

In addition to the costs of the recall campaign, VW could theoretically also face fines of up to \$37,500 per vehicle — a total of more than \$18bn — though analysts have said VW is likely to face a much lower penalty.

The case is a rare but not unique example of this type of manipulation by the motor industry. In 1998, a group of truckmakers including Navistar, Renault and Volvo paid more than \$1bn to resolve claims they installed defeat devices on heavy duty diesel engines. These devices allowed an engine to pass the emissions test, but then turn off emission controls when on the road, the EPA said at the time.

The EPA has been active in the past year, securing a record \$300m settlement with Hyundai and Kia over claims the Korean affiliates overstated the fuel economy of their cars.

#### **The Guardian:**

<http://www.theguardian.com/business/2015/sep/20/vw-software-scandal-chief-apologises-for-breaking-public-trust>

#### **VW software scandal: chief apologises for breaking public trust**

Martin Winterkorn orders external investigation after US regulators found cars gave inaccurate data on toxic emissions



Volkswagen has ordered an external investigation after US regulators found that the carmaker designed software for close to half a million diesel cars that gave false emissions data, its CEO said, adding he was “deeply sorry” for the violation of US rules.

“I personally am deeply sorry that we have broken the trust of our customers and the public,” Martin Winterkorn said in a statement published on Sunday by the carmaker on Sunday. “Volkswagen has ordered an external investigation of this matter.”

The US Environmental Protection Agency (EPA) said on Friday the software deceived regulators measuring toxic emissions, adding that Volkswagen could face fines of up to \$18bn (£11.5bn) as a result. The carmaker could face penalties of \$37,500 for each car not in compliance with clean air rules. The diesel-powered models from 2009-2015 are the VW Jetta, Beetle and Golf, the Passat model from 2014-15, and the Audi A3 from 2009 to 2015.

“We do not and will not tolerate violations of any kind of our internal rules or of the law,” said Winterkorn, adding the company was fully co-operating with the relevant agencies. He gave no details on who would carry out the external investigation.

Cynthia Giles, an enforcement officer at the EPA, said on Friday that the cars in question “contained software that turns off emissions controls when driving normally and turns them on when the car is undergoing an emissions test”.

“VW was concealing the facts from the EPA, the state of California and from consumers. We expected better from VW,” she said. “Using a defeat device in cars to evade clean air standards is illegal and a threat to public health.”

The EPA accused Volkswagen of using the device in 482,000 four-cylinder Volkswagen and Audi diesel cars in the US since 2008. VW must recall all the cars, remove the defeat device and improve the cars’ NOx emissions, which creates smog and has been linked to increased asthma attacks and other respiratory illnesses.

The feature, which the EPA called a defeat device, masks the true emissions only during testing and therefore when the cars are on the road they emit as much as 40 times the level of pollutants allowed under clean air rules meant to ensure public health is protected, said Giles.

Volkswagen suspended sales of cars containing the company’s four-cylinder turbo direct injection (TDI) engine on Friday in light of the investigation. The “clean diesel” engine is commonly used in models including VW’s Beetle, Golf, Jetta, Passat and the A3 luxury compact made by VW-owned Audi.

Richard Corey, executive officer of the California Air Resources Board (Carb), said on Friday: “Our goal now is to ensure that the affected cars are brought into compliance, to dig more deeply into the extent and implications of Volkswagen’s efforts to cheat on clean air rules, and to take appropriate further action.”

The EPA and Carb discovered the defeat device software following independent analysis by researchers at West Virginia University, who were promoted into action by the International Council on Clean Technology, an NGO.

When confronted with the EPA and Carb’s evidence, VW admitted that its cars were fitted with the defeat device.

The crackdown on Volkswagen comes as the Obama administration is attempting to cut air pollution from an array of sources, including the vehicle industry, power plants and oil and natural-gas providers. The EPA set new carbon rules for big trucks earlier this year and has told all vehicle makers they must sell light vehicles averaging 54.5 miles a gallon by 2025.

In Europe, new laws have forced manufacturers to test their cars under real world conditions and not in laboratories, helping to reduce unrealistic claims about emissions. By 2017 all new cars will have to be more stringently tested, effectively ending an era when car makers could exaggerate the performance of their machines.

UK car industry group the SMMT claims that, because of European legislation to cut tailpipe pollution, Britain's air quality is better now than it has been for centuries.

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**From:** Gong, Kristiene

**Sent:** Monday, September 21, 2015 10:26 AM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguillard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/21/2015

**The Hill:**

<http://thehill.com/policy/energy-environment/254323-volkswagen-head-apologizes-for-epa-accusations>

**Volkswagen head apologizes after EPA accusations**

By Timothy Cama - 09/20/15 01:28 PM EDT

The head of German automaker Volkswagen Group apologized Sunday after allegations surfaced that his company deliberately tried to evade United States air pollution laws.

Martin Winterkorn, the company's chief executive officer, said he was "deeply sorry" for violating the trust of customers and the public, and said that Volkswagen had ordered an external investigation into the matter.

Volkswagen faces up to \$18 billion in fines for the violations under the Clean Air Act, under which the Environmental Protection Agency (EPA) sets air pollution rules for motor vehicles.

"We will cooperate fully with the responsible agencies, with transparency and urgency, to clearly, openly, and completely establish all of the facts of this case," Winterkorn said in a Sunday statement

"We do not and will not tolerate violations of any kind of our internal rules or of the law."

Winterkorn stopped short of admitting to the EPA's allegations.

On Friday, the EPA said it had discovered that about 482,000 diesel vehicles sold by VW and its subsidiary Audi in the United States had "defeat devices" that detect when the vehicle is undergoing an EPA emissions test and turn on equipment that controls output of nitrogen oxides to acceptable levels.

At all other times, the EPA said, the vehicles emitted more pollutants, sometimes exceeding allowable volumes by 40 times.

The agency has not yet officially charged Volkswagen with any civil or criminal penalties, nor did it order any recalls of the affected vehicles. California, which has its own emissions regulations, is also accusing the company of violating air rules.

"We at Volkswagen will do everything that must be done in order to re-establish the trust that so many people have placed in us, and we will do everything necessary in order to reverse the damage this has caused," Winterkorn said, adding that the issue is the top priority for him and the entire management team.

**Reuters:**

<http://www.reuters.com/article/2015/09/21/usa-volkswagen-idUSL1N11R0L020150921>

**Volkswagen could face \$18 billion penalties from EPA**

WASHINGTON | BY TIMOTHY GARDNER

Volkswagen AG could face penalties up to \$18 billion after being accused of designing software for diesel cars that deceives regulators measuring toxic emissions, the U.S. Environmental Protection Agency said on Friday.

"Put simply, these cars contained software that turns off emissions controls when driving normally and turns them on when the car is undergoing an emissions test," Cynthia Giles, an enforcement officer at the EPA, told reporters in a teleconference.

Volkswagen can face civil penalties of \$37,500 for each vehicle not in compliance with federal clean air rules. There are 482,000 four-cylinder VW and Audi diesel cars sold since 2008 involved in the allegations. If each car involved is found to be in noncompliance, the penalty could be \$18 billion, an EPA official confirmed on the teleconference.

A U.S. Volkswagen spokesman said the company "is cooperating with the investigation; we are unable to comment further at this time."

The feature in question, which the EPA called a "defeat device," masks the true emissions only during testing and therefore when the cars are on the road they emit as much as 40 times the level of pollutants allowed under clean air rules meant to ensure public health is protected, Giles said.

The EPA accused Volkswagen of using software in four-cylinder Volkswagen and Audi diesel cars from model years 2009 to 2015 made to circumvent emissions testing of certain air pollutants.

The cars are not facing recall at this time, the EPA said.

The diesel-powered vehicles involved from the 2009 to 2015 model years are the VW Jetta, VW Beetle, VW Golf and the Audi A3, as well as the VW Passat from model years 2014 and 2015.

#### **Christian Post:**

<http://www.christianpost.com/news/volkswagen-to-recall-almost-500000-cars-in-the-us-over-epa-violation-145778/>

#### **Volkswagen to recall almost 500,000 cars in the US over EPA violation**

BY LORRAINE CABALLERO , CHRISTIAN POST CONTRIBUTOR

Volkswagen will recall almost 500,000 vehicles released from 2009 to 2015 in the United States after the carmaker allegedly violated the law by using illegal software, which helped it go past environmental restrictions.

The Environmental Protection Agency (EPA) said Volkswagen broke the law by installing a "defeat device" in Volkswagen and Audi units with four-cylinder turbo diesel engines released from the year 2009 to 2015. Under normal driving conditions, the emission control devices installed in the said cars worked with reduced efficacy, according to the Dispatch Times.

In the wake of the violation, Volkswagen chief executive Martin Winterkorn delivered a statement apologizing to their customers and vowing to cooperate with EPA's investigation. However, he did not deny the allegations regarding the illegal software, the International Business Times reports.

"I personally am deeply sorry that we have broken the trust of our customers and the public," said Winterkorn in his statement.

Because of the notice of violation from the EPA, Volkswagen is now facing penalties amounting to more than \$18 billion, or around \$37,500 per unit, based on the U.S.A. federal Clean Air Act. EPA and CARB discovered the illegal software after researchers at the West Virginia University conducted an independent study in cooperation with the global Council on Clean Transportation, the report adds.

Volkswagen has been struggling to sell cars in the United States because of the rising cases of asthma and other respiratory illnesses caused by air pollutants. The diesel vehicles affected by the recall were being counted on to pull up the company's sales in the United States.

Based on the findings of the EPA, Volkswagen had included a certain algorithm in the cars' emissions software that could detect when an emission test is being conducted.

Owners of the diesel cars affected by the recall will be notified by Volkswagen by next year, EPA said. Until Consumer Reports can "retest" the said cars, the recommended rating for the Passat, Jetta, Golf, Beetle, and Audi A3 luxury compact will remain on hold, the report relays.

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**From:** Gong, Kristiene

**Sent:** Monday, September 21, 2015 10:14 AM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguillard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/21/2015

**AP (via Boston Globe):**

<https://www.bostonglobe.com/business/2015/09/20/chief-sorry-after-epa-says-firm-skirted-clean-air-law/3NNTCf2cVxUI1qYNBfMe7L/story.html>

### **Volkswagen chief apologizes for rigging tests of emissions**

By Paul Wiseman and Tom Krisher ASSOCIATED PRESS SEPTEMBER 21, 2015

WASHINGTON — The chief executive of Volkswagen apologized Sunday and VW customers said they felt duped after the Environmental Protection Agency revealed that the German automaker had skirted clean air rules by rigging emissions tests for about 500,000 diesel cars.

"I personally am deeply sorry that we have broken the trust of our customers and the public," Volkswagen chief Martin Winterkorn said in a statement. He said VW has ordered an investigation and promised that the company would cooperate with regulators.

On Friday, the EPA said VW used software that allowed its diesel cars to release fewer smog-causing pollutants during tests than in real-world driving conditions.

The cars, built in the last seven years, include the Audi A3, VW Jetta, Beetle, Golf, and Passat models. The agency ordered VW to fix the cars at its own expense. VW also faces fines that could add up to billions of dollars.

VW edged out Toyota to become the world's top-selling automaker in the first half of 2015. But a hit to its reputation from the emissions revelations could hamper its efforts at a sales rebound in the United States. Between 2013 and 2014, VW sales plummeted 10 percent, even as overall industry sales rose 6 percent. US buyers want SUVs, and Volkswagen doesn't have competitive vehicles to offer them.

The magazine Consumer Reports almost immediately suspended its "recommended" rating on the Jetta and Passat diesels until it can get recall repairs and retest the cars.

Volkswagen marketed the diesel-powered cars, which account for about 25 percent of its sales, as being better for the environment. After the EPA acted, VW withdrew ads for its diesel cars from Youtube.com and asked dealers to stop selling 2015 diesel cars with 2.0-liter engines, according to a person familiar with the matter.

Some VW customers were furious.

Zeeshan Shah, 39, of Fulton, Md., said that he bought a Volkswagen Diesel Passat 2015 in July after he totaled his Jetta two years ago.

“The selling point” for the Diesel Passat was that the technology was so good, he said. Now, Shah plans to return the car back to the dealer to have it examined and doesn’t want to buy another Volkswagen. “Once they cheat you on this issue, what other issues can they cheat you on?” he said. “You don’t trust them.”

John German, senior fellow at the International Council on Clean Transportation, the group that blew the whistle on VW, said it didn’t expect to find any violators when it contracted with West Virginia University to test cars with diesel engines.

The council, a research group that helps governments write regulations, did the US tests in an effort to show that automakers were complying with US nitrogen oxide emissions standards, which are stricter than in other countries, he said.

The EPA said VW faces fines of up to \$37,500 per vehicle for the violations, a total of more than \$18 billion.

**WSJ:**

<http://www.wsj.com/articles/volkswagen-ceo-apologizes-after-epa-accusations-1442754877>

**Volkswagen Halts U.S. Sales of Certain Diesel Cars**

Auto maker also begins external probe after EPA accuses company of dodging emissions rules

By WILLIAM BOSTON, AMY HARDER and MIKE SPECTOR

Updated Sept. 20, 2015 8:57 p.m. ET

Volkswagen AG’s crisis over allegedly cheating on U.S. emissions tests deepened, with the German auto maker halting American sales of popular diesel-powered cars and issuing a sweeping apology for violating customers’ trust.

It also launched an external investigation. Shares in the company slumped more than 20% in early trading Monday in response to the crisis.

The company could face billions of dollars in fines and the crisis could further weaken Volkswagen Chief Executive Martin Winterkorn’s position. He narrowly survived efforts by a major shareholder to oust him earlier this year and was passed over for the chairman’s job, the company’s top post, this month.

“I personally am deeply sorry that we have broken the trust of our customers and the public,” Mr. Winterkorn said in a statement issued by the company on Sunday, adding that VW is cooperating with authorities and has commissioned an external probe.

The U.S. is crucial in Volkswagen’s efforts to become the world’s leading auto maker by sales. The German company has built its campaign to grow in the U.S. market on a promise that its clean-diesel engines deliver better performance and low emissions. It is neck-and-neck with reigning sales leader Toyota Motor Corp. and overtook the Japanese car maker during the first half of this year. But the emissions test probes could stall its progress.

Even prior to the emissions issue, the auto maker’s namesake Volkswagen brand has been battling declining sales in the U.S. market. And Audi AG, its luxury car maker, is finding it hard to catch up in the U.S. with rivals BMW AG and Daimler AG, which makes Mercedes-Benz vehicles.

On Friday, the U.S. Environmental Protection Agency and the California Air Resources Board alleged that Volkswagen used software, dubbed a “defeat device,” in the cars to make diesel-powered engines appear to have lower levels of emissions than they actually did.

About 482,000 Volkswagen diesel-powered cars were affected.

The EPA probe could force Volkswagen and its Audi unit to recall thousands of vehicles that contain the company’s “clean diesel” engines. The four-cylinder 2.0-liter turbo direct injection, or TDI, engine is commonly found in Volkswagen’s Passat, Jetta, Golf, Beetle and in Audi’s A3 luxury compact model.

A Volkswagen spokesman on Sunday said the auto maker halted the sale of all 2015 and 2016 models containing the four-cylinder 2.0 liter TDI engine. The EPA investigation affects cars sold since 2008. The company hasn’t issued a recall, the spokesman said.

Realization that Volkswagen may have cheated to get better emissions results could undermine its U.S. recovery and further weaken its shares, which are down 37% from their peak on March 16, said analysts.

“There is no way to put an optimistic spin on this—this is really serious,” said Max Warburton, an analyst with Bernstein Research. “The best case for VW is probably still a multi-billion dollar fine.”

Consumer Reports, an influential magazine when it comes to car reviews, last week suspended “recommended” ratings on the auto maker’s Jetta and Passat diesel-engine models after the EPA disclosed its allegations. Consumer Reports said the recommendations would be suspended until it can retest the vehicles once they are repaired. The magazine said it would then assess whether the cars’ fuel economy worsened.

A production line at a Volkswagen plant in Wolfsburg, Germany. ENLARGE

A production line at a Volkswagen plant in Wolfsburg, Germany. PHOTO: REUTERS

Laurie Cleveland, a 54-year-old English teacher from Lowville, N.Y., said she bought a new 2015 VW Passat TDI over the Labor Day weekend. She isn’t sure what to do now. She said it is her fourth Volkswagen diesel car since 2006.

“I feel like I’ve been deceived,” she said. “I’m a person who likes to be environmentally friendly,” she added.

Mr. Winterkorn on Sunday vowed to do “everything necessary” to regain public trust in the company.

“We do not and will not tolerate violation of any kind of our internal rules or of the law,” he said. “This matter has first priority for me.”

U.S. officials said Volkswagen violated two parts of the federal Clean Air Act and could face fines of as much as \$37,500 per car, or more than \$18 billion. It remained unclear whether the government would seek such an onerous penalty.

The EPA in November 2014 hit South Korean auto makers Hyundai Motor Co. and Kia Motors Corp. with a record \$100 million penalty for overstating fuel-economy claims and forced the companies to cough up another \$200 million in regulatory credits.

The EPA has said the vehicles remain safe and legal to drive. The agency is working with the Justice Department and an investigation is continuing.

Officials alleged that Volkswagen used software that activates full emissions controls only during testing but then reduces their effectiveness during normal driving. The result is that cars can emit nitrogen oxides at up to 40 times the allowable standard, the agency said. Diesel-powered cars are a small part of overall U.S. car and light-truck sales.

Experts say that the software enables cars to get better fuel economy at the expense of higher nitrogen-oxide emissions, which was likely one reason VW was using them, according to Margo Oge, who recently retired as director of the EPA's Office of Transportation and Air Quality after more than 30 years at the agency.

Volkswagen's apparent motivations on the emissions tests were unclear. An EPA spokeswoman has said it would be "premature to speculate on why VW did this."

A Volkswagen spokesman in Wolfsburg, Germany, on Sunday said, "We are now in the investigation phase and have no comment beyond what is in the statement that we published today."

California is separately investigating the auto maker.

The International Council on Clean Transportation, a nonprofit research organization that works with governments to cut air pollution from mobile sources, and West Virginia University researchers uncovered Volkswagen's alleged use of defeat devices in research and testing over the last couple of years.

**Reuters:**

<http://www.reuters.com/article/2015/09/20/us-usa-volkswagen-ceo-idUSKCN0RK0IK20150920>

**Volkswagen to halt U.S. sales of some 2015 diesel cars**

FRANKFURT/HAMBURG | BY CHRISTOPH STEITZ AND JAN SCHWARTZ

Volkswagen (VOWG\_p.DE) told U.S. dealers to halt sales of some 2015 diesel cars after regulators found software it designed for the affected vehicles gave false emissions data, the company said Sunday, announcing it had launched an investigation.

In a statement published by the carmaker on Sunday, Chief Executive Officer Martin Winterkorn said, "I personally am deeply sorry that we have broken the trust of our customers.

"Volkswagen has ordered an external investigation of this matter," he said.

The U.S. Environmental Protection Agency (EPA) said on Friday the software deceived regulators measuring toxic emissions, adding that Volkswagen could face fines of up to \$18 billion as a result.

The Detroit News reported late Friday that VW dealers still had some 2015 diesel Jetta, Passat and Beetle cars for sale.

A VW representative on Sunday confirmed the partial halt of sales of the affected vehicles but did not give any numbers.

Winterkorn said, "We do not and will not tolerate violations of any kind of our internal rules or of the law," adding that the company was fully cooperating with the relevant agencies.

He gave no details on who would carry out the external investigation.

"This is not your usual recall issue, an error in calibration or even a serious safety flaw," Bernstein analysts wrote in a note on Sunday. "There is no way to put an optimistic spin on this - this is really serious."

Cynthia Giles, an enforcement officer at the EPA, said on Friday the cars in question "contained software that turns off emissions controls when driving normally and turns them on when the car is undergoing an emissions test".

The feature, which the EPA called a "defeat device," masks the true emissions only during testing. When the cars are on the road, they emit as much as 40 times the level of pollutants allowed under clean air rules meant to ensure public health is protected, Giles said.

"We have admitted to it to the regulator. It is true. We are actively cooperating with the regulator," a Volkswagen spokesman said on Sunday.

Volkswagen could face civil penalties of \$37,500 for each vehicle not in compliance with federal clean air rules. Some 482,000 four-cylinder VW and Audi diesel cars sold since 2008 are involved in the allegations.

If each car involved is found to be in noncompliance, the penalty could be \$18 billion, an EPA official confirmed during the telephone conference on Friday.

Volkswagen peer Daimler, meanwhile, signaled it may not be subject to the same violation.

"I have a rough idea of what is happening and that it does not apply to us," Daimler Chief Executive Dieter Zetsche said on Sunday at an event in Hamburg.

"But it is much too early to make a final statement on this," he added.

#### **USA Today:**

<http://www.usatoday.com/story/money/cars/2015/09/20/volkswagen-ceo-martin-winterkorn-apologizes-epa-clean-air-act-emissions-violations/72519678/>

Volkswagen issues sales halt; CEO apologizes on emissions cheating  
Nathan Bomey, USA TODAY 8:02 a.m. EDT September 21, 2015

Volkswagen has admitted cheating U.S. diesel emissions tests, sending company shares plunging as much as 23 percent in Frankfurt and potentially leaving the company open to billions of dollars in fines. Bloomberg

Martin Winterkorn ordered an external investigation after the EPA disclosed the violations.

Volkswagen's CEO said he is "deeply sorry" for violating U.S. emissions standards and ordered an external investigation Sunday, two days after the Environmental Protection Agency (EPA) accused the automaker of purposefully manipulating emissions tests for almost 500,000 vehicles.

The German automaker ordered its U.S. dealerships to stop selling cars impacted by the probe until its engineers can deliver a fix.

The EPA accused Volkswagen of installing software on 482,000 diesel cars in the USA that allowed it to cheat emissions tests, potentially exposing people to harmful pollutants at levels of 40 times the acceptable standard and respiratory conditions such as asthma.

"I personally am deeply sorry that we have broken the trust of our customers and the public," Martin Winterkorn, Volkswagen's CEO, said in a statement. "We will cooperate fully with the responsible agencies, with transparency and urgency, to clearly, openly and completely establish all of the facts of this case." Winterkorn pledged to regain the public's trust.

The violations could expose Volkswagen — the world's largest vehicle manufacturer through the first six months of 2015 — to up to \$18 billion in federal fines if the EPA assesses the maximum possible penalty of \$37,500 per vehicle.

The violations could invite charges of false marketing by regulators, a vehicle recall and payment to car owners, either voluntarily or through lawsuits. Volkswagen advertised the cars under the "Clean Diesel" moniker.

The state of California is investigating the emissions violations.



"We do not and will not tolerate violations of any kind of our internal rules or of the law," Winterkorn said. The company's board takes the allegations "very seriously," he said.

The EPA accused the German automaker of adopting what it called a "defeat device" to trick U.S. regulators into believing its cars met Clean Air Act standards for nitrogen oxides. Volkswagen admitted to investigators it had installed the defeat device, the EPA said.

The EPA said impacted cars include the 2009 to 2014 Volkswagen Jetta, Beetle and Golf, the 2014 and 2015 Volkswagen Passat and the 2009 to 2015 Audi A3.

Volkswagen told dealers they cannot sell the 4-cylinder diesel versions of those cars until a fix is available, Volkswagen spokesman Mario Guerreiro said Sunday.

The sales halt could put a significant dent in the company's September sales performance. About 20% of Volkswagen's vehicle sales are diesel engines, said AutoPacific analyst Dave Sullivan.

"It totally goes against all of the marketing they have had of a clean diesel," Sullivan said of the violations. "That's one of the biggest selling points for Volkswagen."

"The trust of our customers and the public is and continues to be our most important asset," Winterkorn said Sunday. "We at Volkswagen will do everything that must be done in order to re-establish the trust that so many people have placed in us, and we will do everything necessary in order to reverse the damage this has caused. This matter has first priority for me, personally, and for our entire Board of Management."

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**From:** Gong, Kristiene

**Sent:** Friday, September 18, 2015 3:22 PM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguiard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/18/2015

**Sacramento Bee:**

<http://www.sacbee.com/news/business/article35709432.html>

## **Regulators order Volkswagen recalls over device used to trick smog tests**

BY DALE KASLER

In a joint probe with California air regulators, the federal government Friday told Volkswagen to recall 480,000 diesel-fuel cars, charging the automaker with equipping the cars with software designed to circumvent pollution limits.

The U.S. Environmental Protection Agency and California Air Resources Board sent notices to the German automaker over its alleged use of something called a "defeat device," a piece of software that controls emissions during smog tests but not when the vehicles are actually on the road.

"Using a defeat device in cars to evade clean air standards is illegal and a threat to public health," said Cynthia Giles, assistant EPA administrator, in a prepared statement. "Working closely with the California Air Resources Board, EPA is committed to making sure that all automakers play by the same rules."

The EPA sent Volkswagen a "notice of violation" and told car owners they can expect a recall notice. The agency said all repairs will be done at Volkswagen's expense. It added that the cars are safe to drive. The EPA has the authority to order automotive recalls.

Stanley Young, a spokesman for the ARB, said the federal and state agencies were first notified of the problem by independent researchers at West Virginia University and the International Council on Clean Transportation. Months of followup testing, including tests at an ARB lab in El Monte, confirmed the analyses.

Volkswagen officials in early September “admitted to CARB and EPA staff that these vehicles were designed and manufactured with a defeat device,” according to an enforcement letter the California agency sent Friday to Volkswagen officials.

Young said “our major goal is to ensure that these cars come into compliance, that they’re the same in the real world as they are on the test bench.” The automaker eventually could face fines or other enforcement actions, he said.

The agencies plan to “dig more deeply into the extent and implications of Volkswagen’s efforts to cheat on clean air rules, and to take appropriate further action,” said Richard Corey, executive officer of ARB, in a prepared statement.

The EPA said the recall affects VW Jettas, Beetles, Golfs and Audi A3s made in the 2009 to 2015 model years. It also covers VW Passats made in the 2014 and 2015 model years. Only diesel cars are affected. Young said ARB believes there are as many as 50,000 affected vehicles on the road in California.

Under the federal Clean Air Act, California has the authority to set its own regulatory standards for car emissions.

Volkswagen of America spokesman Darryll Harrison Jr. said the company is cooperating with the federal and state agencies but had no further comment.

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**From:** Gong, Kristiene

**Sent:** Friday, September 18, 2015 3:10 PM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguiard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/18/2015

**The Atlantic:**

<http://www.theatlantic.com/technology/archive/2015/09/volkswagens-game-of-make-belief/406159/>

### **Volkswagen's Game of Make-Believe**

The company inserted a device into almost 500,000 cars meant to trick emissions testing, the EPA says.  
ROBINSON MEYER

One of the great lessons of the pioneering computer scientist Alan Turing is this: Computers are only pretending machines. Software is always just imitating something else.

Volkswagen seems to have taken this maxim to new heights. The Environmental Protection Agency alleges that the company installed “defeat devices” in its four-cylinder Volkswagen and Audi-brand diesel cars from 2009 to 2015.

These devices, essentially, let the cars pretend to not break the law. The software could sense when the car was undergoing emissions testing and activate its pollution-control systems accordingly. When the car was being driven during normal use, these systems largely did not activate—making the car a much heavier polluter in real-life than it looked on paper.

With those systems deactivated, the car’s emissions violated the Clean Air Act and California’s state pollution-control regulation.

“Using a defeat device in cars to evade clean-air standards is illegal and a threat to public health,” said Cynthia Giles, assistant administrator for the EPA’s Office of Enforcement and Compliance Assurance, in a statement.

There are almost 500,000 vehicles on American roads with the devices installed, according to the EPA. Volkswagen must now pay to repair the emissions systems in affected cars. The government may also fine the company as much as \$18 billion.

The device was discovered by researchers at West Virginia University, who notified the EPA and California state authorities. The two authorities investigated further, and after demanding "an explanation for the identified emission problems, Volkswagen admitted that the cars contained defeat devices," said a statement from the agency.

I reached out to Volkswagen for comment and haven't heard back yet. The Times reports that the company is complying with investigations.

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**From:** Gong, Kristiene

**Sent:** Friday, September 18, 2015 2:58 PM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguillard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/18/2015

**Mashable:**

<http://mashable.com/2015/09/18/volkswagen-recall-emissions/#uL1ctrM4JZkb>

### **Volkswagen urged to recall cars for allegedly cheating emissions test**

BY CHRIS PERKINS

Automakers are under intense pressure to meet emissions regulations put in place by the world's governments. Volkswagen allegedly had a slightly different solution.

The U.S. Environmental Protection Agency (EPA) ordered a recall of almost 500,000 Volkswagen and Audi vehicles equipped with four-cylinder diesel engines, for software designed to sidestep emissions regulations, reports the New York Times.

In total, 482,000 vehicles are being implicated, including the 2009-2015 Volkswagen Golf, Beetle, Jetta and Beetle, the 2014-2015 Volkswagen Passat and the 2009-2015 Audi A3. The cars were possibly installed with a "defeat device," a piece of software designed to detect when the car is undergoing emissions testing and turn on all of the car's emissions control systems then. In normal driving, the systems would turn off, causing 40 times larger nitrogen oxide emissions, according to the E.P.A.

Nitrogen oxide is a major contributor to smog, which can lead to increased respiratory problems and premature death.

The installation of this software is in violation of the Clean Air Act, and as such, the E.P.A, the State of California and the Department of Justice will launch an investigation. The installation of this software is in violation of the Clean Air Act, and as such, the E.P.A, the State of California and the Department of Justice will launch an investigation.

U.S. regulators hope that this recall will send a message to automakers to not develop software to skirt regulations. Last November, Hyundai and Kia were fined \$100 million for violating the Clean Air Act. The two companies inflated their fuel economy figures for their 2012 vehicles.

The likely reason why Volkswagen could go the trouble to develop and use software like this is to boost performance; emissions control equipment tends to suck power out of an engine.

Researchers from West Virginia University, working with the International Council on Clean Transportation, discovered the software, according to the EPA's press release.

"Volkswagen Group of America, Inc., Volkswagen AG and Audi AG received today notice from the US Environmental Protection Agency, US Department of Justice and the California Air Resources Board of an investigation related to certain emissions compliance matters. VW is cooperating with the investigation; we are unable to comment further at this time," said a representative for Volkswagen.

A representative for the EPA wasn't immediately available for comment.

It's unclear if this issue only pertains to U.S. model Volkswagens and Audis equipped with four-cylinder diesels, or their world-market counterparts as well.

A report from Jalopnik notes that all of Volkswagen's ads for its diesel models have been deleted from YouTube, apparently at the company's request.

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**From:** Gong, Kristiene

**Sent:** Friday, September 18, 2015 2:51 PM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguiard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/18/2015

**Christian Science Monitor:**

<http://www.csmonitor.com/Business/In-Gear/2015/0918/Why-the-EPA-is-forcing-Volkswagen-to-recall-nearly-500-000-cars>

### **Why the EPA is forcing Volkswagen to recall nearly 500,000 cars**

Volkswagen AG, the German car manufacturer, is under investigation by California and US emissions regulators for allegedly circumventing emission tests with a new device.

By Corey Fedde, Staff SEPTEMBER 18, 2015

Volkswagen AG is under investigation for circumventing clean air rules.

German automotive company Volkswagen AG is under investigation by California and US environmental regulators. The US Environmental Protection Agency told Reuters Volkswagen allegedly used software to circumvent emissions testing of specific air pollutants.

"Put simply, these cars contained software that turns off emissions controls when driving normally and turns them on when the car is undergoing an emissions test," Cynthia Giles, an EPA enforcement officer, told Reuters via teleconference.

The feature, known as a "defeat device," is allegedly present in 4 cylinder Volkswagen and Audi vehicles from 2009-2015, which total nearly 500,000 vehicles. The device is programmed to detect when the car is undergoing an emissions test and turn on the full emissions controls. The device then turns the emission controls off during normal driving. The result being far more pollution than the company reported, the EPA told The New York Times.

The pollutant the "defeat device" is designed to conceal, nitrogen oxide, has been linked by public health officials to variety of health problems, including asthma.

The 500,000 diesel vehicle models affected include 2009-2015 Volkswagen Jettas, Beetles, Golfs, Passats, and Audi A3s.

The violation and investigation belie a growing trend in more aggressive environmental enforcement from federal regulators. In November 2014, the administration announced its largest ever penalty for a violation of the Clean Air Act

on Korean automakers Hyundai Motor and Kia Motors. The fine involved a \$300 million settlement for overstating vehicle fuel-economy standards on more than 1 million cars.

According to The New York Times, analysts say the crackdown is meant to send a clear message to automakers that circumventing federal rules will not be tolerated.

California, the EPA, and the Justice Department are working together on the investigation.

"Using a defeat device in cars to evade clean air standards is illegal and a threat to public health. Working closely with the California Air Resources Board, EPA is committed to making sure that all automakers play by the same rules. E.P.A. will continue to investigate these very serious violations," Ms. Giles told the Times.

This report includes material from Reuters.

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**From:** Gong, Kristiene

**Sent:** Friday, September 18, 2015 2:27 PM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguiard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/18/2015

**Reuters:**

<http://www.reuters.com/article/2015/09/18/us-usa-volkswagen-idUSKCN0RI1VK20150918>

**Volkswagen could face \$18 billion penalties from EPA**

WASHINGTON | BY TIMOTHY GARDNER

Volkswagen AG (VOWG\_p.DE) could face penalties up to \$18 billion after being accused of designing software for diesel cars that deceives regulators measuring toxic emissions, the U.S. Environmental Protection Agency said on Friday.

"Put simply, these cars contained software that turns off emissions controls when driving normally and turns them on when the car is undergoing an emissions test," Cynthia Giles, an enforcement officer at the EPA, told reporters in a teleconference.

Volkswagen can face civil penalties of \$37,500 for each vehicle not in compliance with federal clean air rules. There are 482,000 four-cylinder VW and Audi diesel cars sold since 2008 involved in the allegations. If each car involved is found to be in noncompliance, the penalty could be \$18 billion, an EPA official confirmed on the teleconference.

A U.S. Volkswagen spokesman said the company "is cooperating with the investigation; we are unable to comment further at this time."

The feature in question, which the EPA called a "defeat device," masks the true emissions only during testing and therefore when the cars are on the road they emit as much as 40 times the level of pollutants allowed under clean air rules meant to ensure public health is protected, Giles said.

The EPA accused Volkswagen of using software in four-cylinder Volkswagen and Audi diesel cars from model years 2009 to 2015 made to circumvent emissions testing of certain air pollutants.

The cars are not facing recall at this time, the EPA said.

The diesel-powered vehicles involved from the 2009 to 2015 model years are the VW Jetta, VW Beetle, VW Golf and the Audi A3, as well as the VW Passat from model years 2014 and 2015.

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**From:** Gong, Kristiene

**Sent:** Friday, September 18, 2015 1:40 PM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguiard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/18/2015

**The Hill:**

<http://thehill.com/policy/energy-environment/254188-epa-accuses-vw-of-going-around-federal-emissions-standards>

**Feds accuse VW of going around federal emissions standards**

By Devin Henry - 09/18/15 12:50 PM EDT

The Environmental Protection Agency (EPA) is accusing Volkswagen of looking to circumvent federal air pollutant emission standards for the last six years.

EPA officials alleged Friday that about 482,000 VW vehicles sold since 2008 violate the Clean Air Act due to software installed on the vehicles that turns off required air pollution protections.

Janet McCabe, an acting assistant administrator, said the EPA "intends to hold VW responsible to recall the vehicles" and fix the emissions problem. The company could face up to an \$18 billion fine for the violations.

The EPA issued VW a Clean Air Act violation notice Friday, alleging it used a software algorithm on certain vehicles that would turn on emission controls only when they undergo official emissions testing.

This "defeat device," the EPA said, would switch off those controls during normal operation, which means the vehicles could emit up to 40 times the amount of nitrogen oxide allowed under federal air pollution standards.

"These violations are very serious ... not only because they result in excess emissions, but also because VW was concealing the fact from EPA, the state of California and from consumers," Assistant Administrator Cynthia Giles said. "We expected better from VW."

Federal law requires manufacturers to certify to the EPA that their cars meet emissions standards before selling their vehicles in the U.S. Cars with defeat devices cannot be certified, the EPA said.

A VW statement said only that the company had received the violation notice and is cooperating with the investigation.

The EPA and the California Air Resources Board discovered the defeat device during an analysis at West Virginia State University, the EPA said. Officials said their investigation into the incident is ongoing and wouldn't give many more details about how it developed or what the outcome might be.

The agency is not ordering a recall or announcing penalties at the moment, and officials said the cars are safe and legal to drive. The Friday announcement, Giles said, was meant to "inform the public right away and to put VW on notice of our continuing investigation."

The EPA said the announcement covers VW Jettas, Beetles, Golfs and Audi A3s with model years between 2009 and 2015, as well as the VW Passat with model years 2014 and 2015.

**Fortune:**

<http://fortune.com/2015/09/18/volkswagen-recall-epa-smog/>

**Volkswagen ordered to recall almost a half-million cars over emissions trick**

by Benjamin Snyder

The Environmental Protection Agency is ordering Volkswagen to recall nearly a half-million cars after the company allegedly used a computer software trick to make the cars seem more environmentally friendly during state emissions tests.

The VW models involved include the diesel versions of the following models: The 2009-15 Volkswagen Jetta, the 2009–15 Beetle, the 2009–15 Golf, the 2014-15 Passat and the 2009-15 Audi A3. The recall affects 482,000 vehicles in total.

“Using a defeat device in cars to evade clean air standards is illegal and a threat to public health,” said Cynthia Giles, Assistant Administrator for the Office of Enforcement and Compliance Assurance, in a statement. “Working closely with the California Air Resources Board, EPA is committed to making sure that all automakers play by the same rules. EPA will continue to investigate these very serious matters.”

“Volkswagen Group of America, Inc., Volkswagen AG and Audi AG received today notice from the US Environmental Protection Agency, US Department of Justice and the California Air Resources Board of an investigation related to certain emissions compliance matters,” Volkswagen says. “VW is cooperating with the investigation; we are unable to comment further at this time.”

#### **Auto Guide:**

<http://www.autoguide.com/auto-news/2015/09/volkswagen-used-illegal-software-to-cheat-emissions-tests-epa.html>

#### **Volkswagen Used Illegal Software to Cheat Emissions Tests: EPA**

By Stephen Elmer Sep 18, 2015

Volkswagen may be forced to recall almost 500,000 diesel passenger cars after an investigation revealed illegal software was allowing the vehicles to pass government emissions standards.

A software algorithm, known as a defeat device, used on roughly 482,000 Volkswagen vehicles with four-cylinder diesel engines is able to detect when the car is undergoing official emissions testing, and will activate full emissions controls only during the test.

The EPA says that this results in cars that meet emissions standards while being tested, but emit 40 percent more nitrogen oxides while driving.

Independent analysis at West Virginia University uncovered the defeat devices. After being questioned by the EPA and CARB, Volkswagen admitted that its cars did contain defeat devices.

The EPA says “it is incumbent” on Volkswagen to initiate a recall fix for all the affected cars, although they note that these vehicles are still safe to drive and do not present a safety hazard at this time.

Volkswagen may be liable for civil penalties over the findings, which could total up to \$18 billion if the EPA leverages its maximum fine of \$37,500 per vehicle.

“Using a defeat device in cars to evade clean air standards is illegal and a threat to public health,” said Cynthia Giles, Assistant Administrator for the Office of Enforcement and Compliance Assurance. “Working closely with the California Air Resources Board, EPA is committed to making sure that all automakers play by the same rules. EPA will continue to investigate these very serious matters.”

Models affected by the issue include the 2009-2015 Volkswagen Jetta, Beetle and Gold. The 2009-2015 Audi A3 is also affected, along with the 2014-2015 Passat.

Volkswagen acknowledged that it has received notice of the investigation. "VW is cooperating with the investigation; we are unable to comment further at this time," said the brand.

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**From:** Gong, Kristiene

**Sent:** Friday, September 18, 2015 1:36 PM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguillard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/18/2015

**Washington Post:**

<http://www.washingtonpost.com/news/energy-environment/wp/2015/09/18/epa-volkswagen-used-defeat-device-to-circumvent-air-pollution-controls/>

**EPA: Volkswagen used 'defeat device' to circumvent air pollution controls**

By Joby Warrick September 18 at 1:04 PM

The Environmental Protection Agency on Friday accused Volkswagen of installing a software "defeat device" that circumvented pollution controls on nearly a half-million Volkswagens and Audis.

The regulatory agency filed a notice of violation against the German automaker, saying the company deliberately cheated on clean-air rules by installing the software of five of its models since 2008. An EPA statement warned of possible civil penalties and hinted of a future possible recall, saying it was "incumbent on Volkswagen to initiate the process" to fix the affected cars' emissions systems.

"Using a defeat device in cars to evade clean air standards is illegal and a threat to public health," said Cynthia Giles, the EPA's assistant administrator for EPA's Office of Enforcement and Compliance Assurance.

EPA officials, in a joint probe with California's regulatory agency, determined that Volkswagen had inserted a sophisticated algorithm in the cars' emissions software that could detect when a vehicle was undergoing emissions testing. The software, which the EPA called a "defeat device," would turn on full emissions controls during testing, and switch them off again under normal driving conditions.

As a result, the cars emitted far more pollution—up to 40 times the federal standard for the pollutant known as NOx, a component in urban smog, the EPA said.

The software was installed in Volkswagen's Golfs, Jettas and Beetles and Audi A3s beginning in the model year 2009, and in Volkswagen's Passat models beginning in 2014. EPA officials said no action was required by owners of the car, but they suggested that Volkswagen would be compelled to address the problem.

"Our goal now is to ensure that the affected cars are brought into compliance, said Richard Corey, the executive officer for California's Air Resources Board." He said federal and state agencies intended to "dig more deeply into the extent and implications of Volkswagen's efforts to cheat on clean air rules, and to take appropriate further action."

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**From:** Gong, Kristiene

**Sent:** Friday, September 18, 2015 1:31 PM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguillard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/18/2015

**Wall Street Journal:**

<http://www.wsj.com/articles/epa-accuses-volkswagen-of-dodging-emissions-rules-1442595129>



## **EPA Accuses Volkswagen of Dodging Emissions Rules**

Agency says German auto maker circumvented air-pollution standards with software

By AMY HARDER

WASHINGTON—The U.S. Environmental Protection Agency issued a notice on Friday alleging that Volkswagen AG circumvented air-pollution standards with software installed on nearly a half million cars sold in the U.S. since 2008.

Officials said Volkswagen could face penalties of up to \$37,500 per vehicle, or a total of more than \$18 billion, though it remained unclear whether the government would eventually levy such a large penalty. Officials said the German auto maker violated the federal Clean Air Act.

The agency said that owners of these cars don't need to take any action right now and that while the cars have emissions exceeding federal standards, "these violations do not present a safety hazard and the cars remain legal to drive," according to the EPA.

Officials said a recall hasn't been announced and an investigation continues. They plan to at some point order Volkswagen to fix the vehicles, officials said.

Top EPA officials made the announcement alongside the California Air Resources Board, which is separately investigating the alleged use of the software, which EPA describes as a "defeat device." The software reduces the effectiveness of a car's emission control system during normal driving conditions and enables the car to emit nitrogen oxides at up to 40 times the allowable standard, according to the EPA.

"Using a defeat device in cars to evade clean air standards is illegal and a threat to public health," said Cynthia Giles, Assistant Administrator for the Office of Enforcement and Compliance at the EPA.

"Volkswagen Group of America Inc., Volkswagen AG and Audi AG received today notice from the U.S. Environmental Protection Agency, U.S. Department of Justice and the California Air Resources Board of an investigation related to certain emissions compliance matters," Volkswagen said in a statement. "VW is cooperating with the investigation; we are unable to comment further at this time."

EPA said that its allegations cover roughly 482,000 diesel passenger cars with model years between 2009 and 2015 and sold in the U.S. since 2008. They include the following models: the Jetta, Beetle, Audi A3, Golf and Passat.

The Clean Air Act requires vehicle manufacturers to certify to EPA that their products meet federal air-pollution standards. EPA said Friday that by making and selling vehicles with the "defeat device" software, Volkswagen was violating two parts of the Clean Air Act.

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**From:** Gong, Kristiene

**Sent:** Friday, September 18, 2015 1:19 PM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguiard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/18/2015

**NPR:**

<http://www.npr.org/sections/thetwo-way/2015/09/18/441467960/volkswagen-used-defeat-device-to-skirt-emissions-rules-epa-says>

**Volkswagen Used 'Defeat Device' To Skirt Emissions Rules, EPA Says**

BILL CHAPPELL

Saying Volkswagen violated the Clean Air Act, the Environmental Protection Agency says the company's diesel-powered cars have sophisticated software that detects emissions testing – and "turns full emissions controls on only during the test."

Installed on four-cylinder cars, the software, which the EPA calls a "defeat device" that's meant to trick official tests, allowed diesel Jettas, Beetles, and other cars to "emit up to 40 times more pollution" than allowed under U.S. emission standards.

The agency says that after the carmaker was confronted with emission test results this month, it admitted that the cars contain defeat devices.

Volkswagen must now fix the cars' emissions control systems, the agency says, adding that Volkswagen could be liable for civil penalties and other punishment. The cars in question are popular Volkswagen and Audi models that were made from 2009 to this year.

The affected diesel cars include:

- Jetta (Model Years 2009 – 2015)
- Beetle (Model Years 2009 – 2015)
- Audi A3 (Model Years 2009 – 2015)
- Golf (Model Years 2009 – 2015)
- Passat (Model Years 2014-2015)

"Using a defeat device in cars to evade clean air standards is illegal and a threat to public health," said Cynthia Giles, assistant administrator for the Office of Enforcement and Compliance Assurance.

#### **The Verge:**

<http://www.theverge.com/2015/9/18/9352757/epa-volkswagen-recall-emissions>

#### **Volkswagen ordered to recall 500,000 cars for gaming emissions testing**

By Colin Lecher

The federal government has ordered Volkswagen to recall almost 500,000 vehicles, saying the company unlawfully used special software to get around emissions regulations.

**VOLKSWAGEN ALLEGEDLY USED A "DEFEAT DEVICE."**

Volkswagen allegedly used a so-called "defeat device" on certain models made in the past six years. The device works by only turning on emissions control when undergoing emissions testing, but not when the car is actually being driven normally and pollution is at its peak. "This results in cars that meet emissions standards in the laboratory or testing station, but during normal operation, emit nitrogen oxides, or NOx, at up to 40 times the standard," the EPA said in a statement.

Using such a device is a violation of the Clean Air Act, which, as The New York Times points out, the EPA has been increasingly cracking down on. In November, the agency hit Hyundai and Kia with a record \$100 million fine for violations under the act.

The cars affected by the recall include the 2009 to 2015 Jetta, Beetle, Golf, and Audi A3. The 2014 and 2015 Passat is also included. According to the EPA, that adds up to 482,000 cars.

#### **Jalopnik:**

## **EPA Orders Volkswagen To Recall 482,000 Diesel Cars For Cheating On Emissions**

Patrick George

The New York Times reports Volkswagen has been ordered by the Environmental Protection Agency to recall 482,000 diesel cars in the U.S. over software they say was intentionally designed to circumvent smog regulations.

The cars, all diesels from 2009 to 2015, have a “defeat device” programmed to detect when the car is undergoing official emissions testing that only then turns on the full emissions control systems, the Times reports.

These controls are turned off in other situations, leading to far greater emissions than VW let on — which is against the law. The devices were designed to conceal nitrogen oxide emissions.

It’s not immediately clear why VW had such a system on these cars, how the system detected official testing versus normal driving, or if the cars operated differently in normal driving when the defeat device was off. What effect did reducing NOx emissions have on fuel economy or performance?

“Using a defeat device in cars to evade clean air standards is illegal and a threat to public health,” said Cynthia Giles, the E.P.A.’s assistant administrator for the Office of Enforcement and Compliance. “Working closely with the California Air Resources Board, E.P.A. is committed to making sure that all automakers play by the same rules. E.P.A. will continue to investigate these very serious violations.”

The state of California and the Justice Department are also investigating the violation, the paper reports.

The vehicles affected are the 2009-2015 diesel Jetta, Beetle, Golf, Passat and Audi A3.

More on this as we get it.

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**From:** Gong, Kristiene

**Sent:** Friday, September 18, 2015 1:10 PM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguiard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/18/2015

### **Detroit Free Press:**

<http://www.freep.com/story/money/cars/2015/09/18/epa-volkswagen-used-software-skirt-emissions-rules/72399372/>

### **EPA: Volkswagen used software to skirt emissions rules**

By Greg Gardner

The U.S. Environmental Protection Agency and California are accusing Volkswagen of violating the Clean Air Act by using software that allows hundred of thousands of VW and Audi diesel-powered cars to get around emission standards.

“Using a defeat device in cars to evade clean air standards is illegal and a threat to public health,” said Cynthia Giles, EPA assistant administrator for enforcement and compliance assurance. “Working closely with the California Air Resources Board, EPA is committed to making sure that all automakers play by the same rules. EPA will continue to investigate these very serious matters.”

The agency's notice of violation covers about 482,000 diesel cars sold between 2009 and 2015 model years.

Affected diesel models include:

Jetta (model years 2009 – 2015)  
Beetle (model years 2009 – 2015)  
Audi A3 (model years 2009 – 2015)  
Golf (model years 2009 – 2015)  
Passat (model years 2014-2015)

California is separately issuing an In-Use Compliance letter to Volkswagen, and EPA and the California Air Resources Board (CARB) have both initiated investigations based on Volkswagen's alleged actions.

"Working with U.S. EPA we are taking this important step to protect public health thanks to the dogged investigations by our laboratory scientists and staff," said CARB executive officer Richard Corey. "Our goal is to ensure that the affected cars are brought into compliance, to dig more deeply into the extent and implications of Volkswagen's efforts to cheat on clean air rules, and to take appropriate further action."

The federal and California regulators say Volkswagen used a sophisticated software algorithm on certain Volkswagen vehicles that detects when the car is undergoing official emissions testing and turns full emissions controls on only during the test. The effectiveness of these vehicles' pollution emissions control devices is greatly reduced during all normal driving situations.

As a result the cars met emissions standards in the laboratory or testing station, but during normal operation, emit nitrogen oxides, or NOx, at up to 40 times the permissible standard. The software produced by Volkswagen is a "defeat device," as defined by the Clean Air Act.

Corey said testing groups in Europe found information that indicated Volkswagen may have manipulated its emission tests and told California regulators about their suspicions.

NOx pollution contributes to nitrogen dioxide, ground-level ozone and fine particulate matter. Exposure to these pollutants has been linked with a range of serious health effects, including increased asthma attacks and other respiratory illnesses that can be serious enough to send people to the hospital. Exposure to ozone and particulate matter have also been associated with premature death due to respiratory-related or cardiovascular-related effects. Children, elderly people and those with pre-existing respiratory disease are particularly at risk for health effects of these pollutants.

The Clean Air Act requires vehicle manufacturers to certify to EPA that their products will meet applicable federal emission standards to control air pollution, and every vehicle sold in the U.S. must be covered by an EPA-issued certificate of conformity. Motor vehicles equipped with defeat devices, which reduce the effectiveness of the emission control system during normal driving conditions, cannot be certified. By making and selling vehicles with defeat devices that allowed for higher levels of air emissions than were certified to EPA, Volkswagen violated two important provisions of the Clean Air Act.

EPA and CARB uncovered the defeat device software after independent analysis by researchers at West Virginia University, working with the International Council on Clean Transportation, a non-governmental organization. The researchers raised questions about emissions levels, and the agencies began further investigations into the issue. In September, after EPA and CARB demanded an explanation for the emission problems, Volkswagen admitted that the cars contained defeat devices.

VW may be liable for civil penalties of up to \$37,500 per vehicle found to be violating the standard, or potentially more than \$18 billion.

It is incumbent upon Volkswagen to initiate the process that will fix the cars' emissions systems. Car owners should know that although these vehicles have emissions exceeding standards, these violations do not present a safety hazard and the cars remain legal to drive and resell. Owners of cars of these models and years do not need to take any action at this time.

**Wired:**

<http://www.wired.com/2015/09/epa-accuses-volkswagen-cheating-emissions-testing-482000-cars/>

**EPA ACCUSES VOLKSWAGEN OF CHEATING EMISSIONS TESTING ON 482,000 CARS**

Alex Davies

THE EPA IS accusing Volkswagen of illegally using software to cheat emissions standards, allowing the German automaker to sell half a million cars that produce smog at 40 times the legal limit.

In a notice of violation of the Clean Air Act sent to Volkswagen AG, Audi AG, and Volkswagen Group of America, Inc today, the EPA said diesel-powered VW cars used a "defeat device," a kind of "a sophisticated software algorithm [that] detects when the car is undergoing official emissions testing, and turns full emissions controls on only during the test. The effectiveness of these vehicles' pollution emissions control devices is greatly reduced during all normal driving situations."

The accusation applies to 482,000 diesel-powered, four-cylinder Jetta, Beetle, Audi A3, Golf, and Passat cars sold between 2008 and 2015 in the US. The news comes as the Frankfurt motor show, one of the biggest events of the year for the automaker, opens to the press. VW will be required to fix the problem, at no cost to car owners.

**The Week:**

<http://www.theweek.com/speedreads/578080/epa-catches-volkswagen-blatantly-cheating-smog-tests>

**EPA catches Volkswagen blatantly cheating on smog tests**

Jeva Lange

Almost half a million Volkswagen cars, including recent diesel models of Jettas, Beetles, Audi A3s, Golfs, and Passats, may be recalled in an enormous crackdown on the German carmaker's alleged blatant circumvention of smog standards, The New York Times reports.

The Environmental Protection Agency has demanded that the cars be recalled, and specifically accused Volkswagen of installing software, called a "defeat device," in their cars that basically just lies about what a car's emissions are during tests:

The device is programmed to detect when the car is undergoing official emissions testing, and to only turn on full emissions control systems during that testing. Those controls are turned off during normal driving situations, when the vehicles pollute far more heavily than reported by the manufacturer, the E.P.A. said. [The New York Times]

Car emissions contain nitrogen oxide, which creates smog, as well as pollutants that cause asthma.

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**From:** Gong, Kristiene

**Sent:** Friday, September 18, 2015 12:56 PM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguiard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/18/2015

**LA Times:**

<http://www.latimes.com/business/autos/la-fi-hy-volkswagen-probe-20150918-story.html>

**Volkswagen is accused of sidestepping emissions rules, 'cheating' pollution tests**

By JERRY HIRSCH

Federal and California environmental regulators accused Volkswagen of using software that “cheats” pollution testing in nearly 500,000 recent model VWs and Audis by circumventing emission standards in its diesel cars.

The German automaker will eventually have to recall all of the vehicles and change the emissions systems at its own expense, regulators said. Additionally it could face a fine of about \$18 billion, or \$35,500 per car, federal environmental officials said.

The Environmental Protection Agency on Friday issued the German automaker a “notice of violation” of the Clean Air Act for both VW models and the company’s Audi luxury brand. It covers models equipped with four-cylinder diesel engines. The California Air Resources Board issued a similar letter.

Volkswagen and Audi vehicles from model years 2009-2015 have the software, which uses an algorithm that detects when the vehicle is undergoing pollution tests and changes the way it performs from when it is being driven on the open road.

It “is illegal and a threat to public health,” said Cynthia Giles, assistant administrator for the Office of Enforcement and Compliance Assurance. “EPA is committed to making sure that all automakers play by the same rules.”

“We expected better from VW,” Giles said.

Air Resources Board Executive Officer Richard Corey said the California agency wants to bring the cars “into compliance, to dig more deeply into the extent and implications of Volkswagen’s efforts to cheat on clean air rules, and to take appropriate further action.”

Volkswagen said it is cooperating with the investigation.

“We are unable to comment further at this time,” the company said in a statement.

The affected diesel models include: Jetta (model years 2009 – 2015,) Beetle (model years 2009 – 2015,) Audi A3 (model years 2009 – 2015,) Golf (model years 2009 – 2015) and Passat (model years 2014-2015.)

#### **International Business Times:**

<http://www.ibtimes.com/volkswagen-audi-recall-500000-cars-broke-environmental-rules-white-house-says-2104099>

#### **Volkswagen And Audi Recall: 500,000 Cars Broke Environmental Rules, White House Says**

By Christopher Harress

The Obama administration Friday forced car manufacturer Volkswagen to recall nearly 500,000 cars after it was discovered the German automaker had fitted its vehicles with special technology that can beat environmental tests for reducing smog, according to a new report.

The recall, which was imposed after an investigation by the Environmental Protection Agency, is expected to affect four-cylinder Volkswagen and Audi cars that were manufactured between 2009 and 2015.

“Using a defeat device in cars to evade clean air standards is illegal and a threat to public health,” Cynthia Giles, the E.P.A.’s assistant administrator for the Office of Enforcement and Compliance, told the New York Times.

“Working closely with the California Air Resources Board, E.P.A. is committed to making sure that all automakers play by the same rules. E.P.A. will continue to investigate these very serious violations.”

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**From:** Gong, Kristiene

**Sent:** Friday, September 18, 2015 12:52 PM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguiard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/18/2015

**Detroit News:**

<http://www.detroitnews.com/story/business/autos/foreign/2015/09/18/epa-vw-diesel-vehicles-violated-emissions-rules/72401296/>

**EPA: 482K VW diesel vehicles violated emissions rules**

David Shepardson

Washington — The Environmental Protection Agency and the state of California said Volkswagen AG violated federal law by allowing 482,000 diesel VW and Audi cars sold since 2009 to evade emissions requirements using sophisticated software.

The announcement is a big setback to the German automaker that has made diesel vehicles a big part of its U.S. strategy. VW could face fines or criminal prosecution and must immediately prevent those vehicles from being able to defeat emissions rules.

VW concealed facts but has now admitted wrongdoing, said Cynthia Giles, assistant administrator for the Office of Enforcement and Compliance Assurance. "We expected better from VW," she said.

The agencies allege that four-cylinder Volkswagen and Audi diesel cars from model years 2009-2015 include software that circumvents EPA emissions standards for certain air pollutants. California is separately issuing an In-Use Compliance letter to Volkswagen, and EPA and the California Air Resources Board have initiated investigations based on Volkswagen's alleged actions.

EPA said the vehicles software "detects when the car is undergoing official emissions testing, and turns full emissions controls on only during the test." The vehicles include diesel Golf, Jetta, Sportwagen, Beetle and Audi A3 vehicles built from 2009-2015.

EPA said "the effectiveness of these vehicles' pollution emissions control devices is greatly reduced during all normal driving situations. This results in cars that meet emissions standards in the laboratory or testing station, but during normal operation, emit nitrogen oxides, or NOx, at up to 40 times the standard. The software produced by Volkswagen is a 'defeat device,' as defined by the Clean Air Act."

NOx pollution contributes to nitrogen dioxide, ground-level ozone, and fine particulate matter. EPA said exposure has been linked to serious health issues, including increased asthma attacks and other respiratory illnesses that can be serious enough to send people to the hospital. "Exposure to ozone and particulate matter have also been associated with premature death due to respiratory-related or cardiovascular-related effects. Children, the elderly, and people with pre-existing respiratory disease are particularly at risk for health effects of these pollutants," EPA said.

This is the latest example of automakers not following the miles per gallon and emissions rules.

"Using a defeat device in cars to evade clean air standards is illegal and a threat to public health," said Giles. "Working closely with the California Air Resources Board, EPA is committed to making sure that all automakers play by the same rules. EPA will continue to investigate these very serious matters."

The Clean Air Act requires vehicle manufacturers to certify to EPA that their products will meet applicable federal emission standards to control air pollution, and every vehicle sold in the U.S. must be covered by an EPA-issued

certificate of conformity. Motor vehicles equipped with defeat devices, which reduce the effectiveness of the emission control system during normal driving conditions, cannot be certified.

“Working with U.S. EPA we are taking this important step to protect public health thanks to the dogged investigations by our laboratory scientists and staff,” said Air Resources Board Executive Officer Richard Corey. “Our goal now is to ensure that the affected cars are brought into compliance, to dig more deeply into the extent and implications of Volkswagen’s efforts to cheat on clean air rules, and to take appropriate further action.”

The issue first came to the attention of the agencies in 2014 after independent analysis by researchers at West Virginia University, working with the International Council on Clean Transportation, a non-governmental organization, raised questions about emissions levels, and the agencies began further investigations into the issue.

In September, after EPA and CARB demanded an explanation for the identified emission problems, Volkswagen admitted that the cars contained defeat devices, the agencies said.

EPA said VW must recall the vehicles. EPA said “owners should know that although these vehicles have emissions exceeding standards, these violations do not present a safety hazard and the cars remain legal to drive and resell. Owners of cars of these models and years do not need to take any action at this time.”

**AP (via ABC News):**

<http://abcnews.go.com/Politics/trump-candidates-criticize-donald-muslim-comments/story?id=33858500>

**EPA Says VW Intentionally Violates Clean Air Standards**

By MATTHEW DALY, ASSOCIATED PRESS WASHINGTON — Sep 18, 2015, 12:42 PM ET

The Environmental Protection Agency says nearly 500,000 Volkswagen and Audi diesel cars built in the past seven year are intentionally violating clean air standards by using software that evades EPA emissions standards.

The EPA says the cars include a device programmed to detect when the car is undergoing official emissions testing. The cars only turn on full emissions control systems during that testing. The EPA says the controls are turned off during normal driving situations.

The EPA called the company's use of the device illegal and a threat to public health.

The EPA called on VW to fix the cars' emissions systems, but said car owners do not need to take any immediate action.

VW said in a statement it is cooperating with the investigation.

**Bloomberg:**

<http://www.bloomberg.com/news/articles/2015-09-18/epa-says-volkswagon-software-circumvented-car-emissions-testing>

**EPA Says Volkswagen Circumvented Car Emissions Tests**

Jeff Plungis

Volkswagen AG sold diesel cars with software that circumvented U.S. emissions standards for air pollution, the Environmental Protection Agency said.

The company sold Volkswagen and Audi brand cars from model years 2009-2015 that contained a “sophisticated software algorithm” that detects when the car is undergoing official emissions testing, and turns on full emissions control, the agency said. During normal driving times, the systems don’t operate fully, regulators said.



The potential fine is \$37,500 per vehicle and 482,000 autos are part of the case, yielding a potential fine of more than \$18 billion, Cynthia Giles, EPA assistant administrator for enforcement and compliance, said on a phone call with reporters Friday.

California is also investigating the claims.

Volkswagen said in a statement it is cooperating with the investigation and unable to comment further.

**Business Insider:**

<http://www.businessinsider.com/vw-told-to-recall-500000-cars-after-us-government-accuses-it-of-dodging-clean-air-standards-2015-9>

**VW told to recall 500,000 cars after US government accuses it of dodging clean air standards**

Benjamin Zhang

The Environmental Protection Agency has ordered the recall of 500,000 Volkswagen cars.

According to Coral Davenport of the New York Times, the EPA accused VW of using hidden software — called a "defeat device" — to dodge clean air standard during emissions testing.

"Using a defeat device in cars to evade clean air standards is illegal and a threat to public health," assistant administrator for the Office of Enforcement and Compliance Assurance said Cynthia Giles said in a statement.

"Working closely with the California Air Resources Board, EPA is committed to making sure that all automakers play by the same rules. EPA will continue to investigate these very serious matters."

In response to the recall, Volkswagen issued the following statement to Business Insider.

"Volkswagen Group of America, Inc., Volkswagen AG and Audi AG received today notice from the US Environmental Protection Agency, US Department of Justice and the California Air Resources Board of an investigation related to certain emissions compliance matters. VW is cooperating with the investigation; we are unable to comment further at this time."

The recall affects 482,000 diesel powered cars sold in the US since 2008. They include:

Volkswagen Jetta TDI: 2009-20015

Volkswagen Beetle TDI: 2009-2015

Audi A3 TDI: 2009-2015

Volkswagen Golf TDI: 2009-2015

Volkswagen Passat TDI: 2014-2015

This story is developing. We will update when more information is available.

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**From:** Gong, Kristiene

**Sent:** Friday, September 18, 2015 12:42 PM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguillard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/18/2015

**Washington Examiner:**

## **EPA says Audi, VW cheating on emissions**

By JOHN SICILIANO

The Environmental Protection Agency and California regulators charged automakers Volkswagen and Audi on Friday with purposefully violating emission standards in their line of diesel cars.

EPA accused the automakers of using a device in their vehicles to get around the pollution rules. According to EPA, the device regulates emissions, but only turns on and works while emissions are being tested.

"Using a defeat device in cars to evade clean air standards is illegal and a threat to public health," said Cynthia Giles, EPA assistant administrator for the agency's enforcement office. "Working closely with the California Air Resources Board, EPA is committed to making sure that all automakers play by the same rules. EPA will continue to investigate these very serious matters."

Giles said VW was "concealing facts" about the devices. The vehicle models involved include the popular Jetta, Audi A-3, Passat and the iconic Beetle, and in model years 2009-2015. The violations cover 482,000 diesel passenger cars.

The EPA's announcement isn't a final decision, but is a clear sign that the EPA believes it has a case against the automakers, one that could lead to fines as large as \$37,000 per vehicle. All together, the combined fines could pile up to \$18 billion.

An EPA statement said "California is separately issuing an In-Use Compliance letter to Volkswagen, and EPA and the California Air Resources Board ... have both initiated investigations based on Volkswagen's alleged actions."

"Working with US EPA we are taking this important step to protect public health thanks to the dogged investigations by our laboratory scientists and staff," the California board's CEO Richard Corey said. "Our goal now is to ensure that the affected cars are brought into compliance, to dig more deeply into the extent and implications of Volkswagen's efforts to cheat on clean air rules, and to take appropriate further action."

### **WPTZ:**

<http://www.wptz.com/money/epa-accuses-vw-of-cheating-on-emission-rules/35352250>

## **EPA accuses VW of cheating on emission rules**

Published 12:29 PM EDT Sep 18, 2015

NEW YORK (CNMoney) —Diesel cars from Volkswagen and Audi cheated on clean air rules by including software that made the cars look cleaner than they actually were, according to federal and California regulators.

The regulators say that the software on the cars turned up the emission controls only when it could tell that the car was being tested.

"The effectiveness of these vehicles' pollution emissions control devices is greatly reduced during all normal driving situations," said the Environmental Protection Agency's notice to the company. "This results in cars that meet emissions standards in the laboratory or testing station, but during normal operation, emit nitrogen oxides at up to 40 times the standard."

There are nearly 500,000 of the diesel cars on U.S. roads. The models include the VW Jetta, the Beetle and the Golf from model years 2009 through 2015, the Passat from 2014-2015 as well as the Audi A3, model years 2009-2015. The luxury brand is owned by Volkswagen.

Owners of the affected cars do not face health risks according to the EPA and can continue to drive or sell the cars. But the EPA says that VW will be responsible for fixing the problem.

Volkswagen did not immediately respond to a request for comment.

**City AM:**

<http://www.cityam.com/224676/volkswagen-told-recall-500000-vehicles-over-emissions>

**Volkswagen told to recall 500,000 vehicles over emissions**

by Catherine Neilan

Volkswagen has been ordered to recall nearly half a million cars in the US by the Obama administration, which claims the German car group used software that was purposely designed to dodge environmental standards for reducing smog.

The US government's Environmental Protection Agency issued the company a notice of violation this afternoon, accusing Volkswagen of having installing a "defeat device" into its four-cylinder Volkswagen and Audi vehicles between 2009 and 2015, according to the New York Times.

The device is programmed to detect when the car is undergoing emissions test, during which time it will turn on its full emissions control systems. These controls are reportedly then turned off when the car is driving in "normal" situations, when the cars pollute more heavily than reported by Volkswagen, the EPA claims.

The government agency estimates that 482,000 diesel passenger vehicles are affected.

Volkswagen could not be contacted at the time of publication.

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**From:** Gong, Kristiene

**Sent:** Friday, September 18, 2015 12:33 PM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguillard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/18/2015

**Washington Times:**

<http://www.washingtontimes.com/news/2015/sep/18/epa-volkswagen-used-software-cheat-emissions-tests/>

**EPA: Volkswagen used 'sophisticated software' to cheat emissions tests**

By Ben Wolfgang - The Washington Times - Friday, September 18, 2015

The Obama administration on Friday accused Volkswagen of using a "sophisticated software algorithm" to cheat on emissions testing and mask the fact that some models emit too much harmful pollution.

Some Volkswagen cars from model years 2009 to 2015, the Environmental Protection Agency said, include software that can detect when they're undergoing emissions testing. Full emissions controls were activated only during testing and then automatically shut down during normal operation, the agency charged.

"Using a defeat device in cars to evade clean air standards is illegal and a threat to public health," said Cynthia Giles, assistant administrator for the EPA's Office of Enforcement and Compliance Assurance. "Working closely with the California Air Resources Board, EPA is committed to making sure that all automakers play by the same rules. EPA will continue to investigate these very serious matters."

During normal operation, the “defeat device” allowed Volkswagen cars to emit nitrogen oxides at up to 40 times the federal threshold as laid out in the Clean Air Act.

The EPA has issued “a notice of violation” to the automaker, and the state of California has launched its own investigation into the matter. Volkswagen could face civil penalties for the violations, the agency said.

The allegations apply to about 482,000 diesel passenger cars sold since 2008, including Jettas, Beetles, Audi A3s, Golfs and other models.

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**From:** Gong, Kristiene

**Sent:** Friday, September 18, 2015 12:26 PM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguiard, Robert

**Cc:** Smith, Roxanne

**Subject:** RE: Volkswagen Clips 9/18/2015

**USA Today:**

<http://www.usatoday.com/story/money/cars/2015/09/18/epa-accuses-volkswagen-audi-evading-emission-laws/72400018/>

**EPA accuses Volkswagen, Audi of evading emission laws**

Nathan Bomey, USA TODAY 12:12 p.m. EDT September 18, 2015

The German automaker adopted a "defeat device" to trick regulators, the EPA said.

The Environmental Protection Agency on Friday accused Volkswagen of installing software on certain cars in the U.S. to evade federal emission regulations, potentially exposing people to harmful pollutants.

The German automaker adopted what the EPA called a "defeat device" to trick U.S. regulators into believing that its cars met Clean Air Act standards, the federal agency said in a statement.

The agency said 482,000 cars violated federal standards, including four-cylinder Volkswagen cars from 2009-15 and Audi diesel cars from the same period. They included the Volkswagen Jetta, Beetle, Golf and Passat, and the Audi A3.

Volkswagen, whose brands include the luxury Audi lineup, may face fines or other penalties, the EPA said.

The cars are still safe to drive, the EPA said, and owners do not need to take immediate action. But the agency will require Volkswagen to fix the cars for free.

**Newsweek:**

<http://www.newsweek.com/epa-volkswagen-software-cheat-clean-air-rules-373869>

**EPA: Volkswagen Used Software in Cars to Cheat on Clean Air Rules**

BY ZOË SCHLANGER 9/18/15 AT 12:14 PM

A U.S. Environmental Protection Agency investigation has concluded that for years Volkswagen has been installing software in its vehicles that circumvents federal emissions standards for air pollution, the agency announced Friday.

EPA alleges that Volkswagen installed a “sophisticated software algorithm on certain Volkswagen vehicles” that could detect when the car was being tested for emissions. The software would turn full emissions controls on only during the official test. “This results in cars that meet emissions standards in the laboratory or testing station, but during normal

operation, emit nitrogen oxides, or NOx, at up to 40 times the standard,” EPA said in a press release. They called the software a “defeat device,” deliberately installed to evade the Clean Air Act standards.

This “defeat device” was found in several car models, from 2009 models up to 2015 models, according to EPA:

Jetta (Model Years 2009 – 2015)

Beetle (Model Years 2009 – 2015)

Audi A3 (Model Years 2009 – 2015)

Golf (Model Years 2009 – 2015)

Passat (Model Years 2014-2015)

In total, this includes about 482,000 passenger cars.

“Using a defeat device in cars to evade clean air standards is illegal and a threat to public health,” Cynthia Giles, EPA's Assistant Administrator for the Office of Enforcement and Compliance Assurance, said in a statement emailed Friday. The agency worked with California regulators to investigate the automobile manufacturer and issue a notice of violation.

“Our goal now is to ensure that the affected cars are brought into compliance, to dig more deeply into the extent and implications of Volkswagen’s efforts to cheat on clean air rules, and to take appropriate further action,” California Air Resources Board Executive Officer Richard Corey said in the statement.

Volkswagen has yet to respond publicly to the EPA allegations. Newsweek has reached out to the company for comment, and we will update if they respond.

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**From:** Gong, Kristiene

**Sent:** Friday, September 18, 2015 12:20 PM

**To:** Purchia, Liz; Allen, Laura; Abrams, Dan; Reynolds, Thomas; Conger, Nick; Senn, John; Millett, John; Birgfeld, Erin; Hull, George; Daguiard, Robert

**Cc:** Smith, Roxanne

**Subject:** Volkswagen Clips 9/18/2015

**NY Times:**

[http://www.nytimes.com/2015/09/19/business/volkswagen-is-ordered-to-recall-nearly-500000-vehicles-over-emissions-software.html?\\_r=0](http://www.nytimes.com/2015/09/19/business/volkswagen-is-ordered-to-recall-nearly-500000-vehicles-over-emissions-software.html?_r=0)

**Volkswagen Is Ordered to Recall Nearly 500,000 Vehicles Over Emissions Software**

By CORAL DAVENPORT SEPT. 18, 2015

WASHINGTON — The Obama administration on Friday ordered Volkswagen to recall nearly a half million cars from the road, saying the German automaker used software intentionally designed to circumvent environmental standards for reducing smog.

The Environmental Protection Agency issued the company a notice of violation and accused the company of breaking the law by installing software known as a “defeat device” in 4-cylinder Volkswagen and Audi vehicles from model years 2009-15. The device is programmed to detect when the car is undergoing official emissions testing, and to only turn on full emissions control systems during that testing. Those controls are turned off during normal driving situations, when the vehicles pollute far more heavily than reported by the manufacturer, the E.P.A. said.

“Using a defeat device in cars to evade clean air standards is illegal and a threat to public health,” said Cynthia Giles, the E.P.A.’s assistant administrator for the Office of Enforcement and Compliance. “Working closely with the California Air Resources Board, E.P.A. is committed to making sure that all automakers play by the same rules. E.P.A. will continue to investigate these very serious violations.”

The software was designed to conceal the cars' emissions of the pollutant nitrogen oxide, which contributes to the creation of ozone and smog. The pollutants are linked to a range of health problems, including asthma attacks and other respiratory diseases.

The state of California has issued a separate notice of violation to the company. California, the E.P.A. and the Justice Department are working together on an investigation of the allegations.

The allegations cover roughly 482,000 diesel passenger cars sold in the United States since 2009.

Affected diesel models include the Volkswagen Jetta (model years 2009-15), Volkswagen Beetle (model years 2009-15), Audi A3 (model years 2009-15), Volkswagen Golf (model years 2009-15) and Volkswagen Passat (model years 2014-15).

The notice of violation is part of a broader, more aggressive enforcement effort by federal environmental regulators on the auto industry. Analysts said it was meant to send a clear message to automakers that they will be harshly treated for compromising federal rules.

It follows a November 2014 announcement of the administration's largest-ever penalty for a violation of the Clean Air Act, in which the government fined the Korean automakers Hyundai Motor and Kia Motors a combined \$300 million as part of a settlement for overstating vehicle fuel-economy standards on 1.2 million cars.

"They want to make it clear that they're going to crack down on cheaters," said Frank O'Donnell, president of the environmental advocacy group Clean Air Watch. "They're cheating not only car buyers but the breathing public. They want to lay down the law, enforce the law, and show they're not going to tolerate cheaters. The laws and regulation are only as good as the enforcement."

The software was designed to conceal the cars' emissions of the pollutant nitrogen oxide, which contributes to the creation of ozone and smog. The pollutants are linked to a range of health problems, including asthma attacks and other respiratory diseases.

The state of California has issued a separate notice of violation to the company. California, the E.P.A. and the Justice Department are working together on an investigation of the allegations.

The allegations cover roughly 482,000 diesel passenger cars sold in the United States since 2009.

Affected diesel models include the Volkswagen Jetta (model years 2009-15), Volkswagen Beetle (model years 2009-15), Audi A3 (model years 2009-15), Volkswagen Golf (model years 2009-15) and Volkswagen Passat (model years 2014-15).

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